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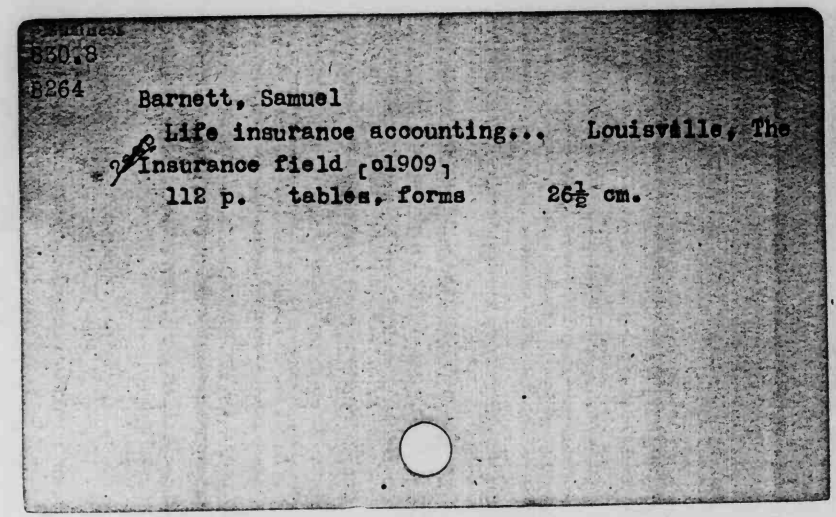

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Life Insurance Accounting

By

Samuel Barnett

Consulting Actuary

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LIFE INSURANCE ACCOUNTING

By

SAMUEL BARNETT

CONSULTING ACTUARY

ATLANTA, GEORGIA

THE INSURANCE FIELD

LOUISVILLE, KENTUCKY

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Table of Contents.

Chapter I. INTRODUCTION.
General Idea of Accounting 5
Legal Accounting 6
Separate Parts of Accounting 6
Plan of This Work 7
Chapter II. LIFE INSURANCE BOOKKEEPING.
General Idea 8
Peculiarities of Life Insurance Bookkeeping 8
List of Books 11
General Journal 12
Application Register 14
Policy Register 15
Individual Policy Ledger Cards 16
Agent's Policy Memorandum Ledger 19
Agent's Note Memorandum Book 21
The Agent's Journal 22
The Agency System in General 23
The Premium Journal 24
The Investment Journal 35
The Expense Journal 37
The Insurance Terminated Journal 41
The Dividend Journal 49
The Annuity & Supplementary Contract Journal 50
The General Ledger 50
Bank and Cash Account 51
Agent's Personal Ledger 52
Record of Classified Insurance 53
Reserves and Dividend Records 55
Mortality and Lapse Records 56
Completing the Records and Balancing the Books 57
Chapter III. CONCLUSIONS FROM THE FACTS.
Legal Reserves 60
The Contingency Reserve 62
Proportional to Fluctuations 62
The Standard of Safety 63
Contingency Reserve Table 64
Calculation of Contingency Reserve 65
Maximum Insurance on Single Life 67
Probable Fluctuations 68
Nature of the Contingency Reserve 69
How Created, Used and Redistributed 69

Chapter IV. DIVIDEND CALCULATIONS.
Regulated by Law 72
Resulting Trusts 72
Elements Entering into Dividend Calculations 73
The Duty of Dividend Calculations 73
Incidence of Expenses and Profits 74
Expenses 75
Premium Collection 76
General Administration 77
Taking Care of the Funds 79
Interest 79
Mortality 80
Lapses and Surrender 81
Medical Selection, Lapses and Surrenders 82
Legal Classifications 82
Formulae for Dividend Calculations 83
Applications of the Formulae 83
The Aggregate Divisible Surplus 87
Practical Method of Dividend Calculations 88

Chapter V. STATEMENTS.
General Explanations 89
Form of Statements 90
How to Make Out Statements 96
Gain and Loss Exhibit 98

Chapter VI. EXAMINATIONS AND VALUATIONS.
Their Object 101
Net Valuations and Legal Reserves 101
Defects of Net Valuations 101
Effect of Rapid Growth 103
Natural Accounting and Valuations 104
Condensed Statement for Purposes of Valuation 105
Solvency and Insolvency 107
Equalization 109
Savings 112

Life Insurance Accounting.

CHAPTER I.

INTRODUCTION.

The ultimate object of Accounting is to determine the rights of the various parties connected with the business.

The right to call for an Accounting is vested in the Stockholders and Policyholders.

The duty of Accounting rests upon the Companies.

And yet in many respects correct legal Accounting is more important to the Companies than to the Policyholders. In fact, it is often more important to perform a duty than to insist upon a right.

Strange to say, the subject of Life Insurance Accounting has been little studied.

The rights of the Policyholders and of the Stockholders are very badly defined and, in fact, scarcely defined at all.

And, of course, conversely, the duties of the Companies are very badly defined and, in fact, scarcely defined at all.

As a consequence, there are no very definite rules for examining the Companies and no very definite forms for Companies' Statements. How a Company is to account is left pretty much to the Company.

Still, there are some rigid legal requirements. Requirements which are too rigid in some particulars and too lax in others. Requirements which seem unjustly to favor some Companies and to bear very harshly on other Companies.

In our opinion it will greatly benefit the Companies, particularly the young Companies, more closely to study the subject of Accounting and to devise correct and fair methods of examinations and complete and cor-

rect forms of Company's Statements, and more thoroughly to understand the relative rights of Stockholders and Policyholders.

LEGAL ACCOUNTING.

All rights are determined by Law. The Law must, therefore, outline the general method of Accounting.

But to arrange and classify the facts in such a way as the Law may apply, is the work of the Actuary and of the expert Insurance Bookkeeper.

Under general rules of Law the Actuary must make calculations so as to ascertain under the rules of Law the rights of the parties in dollars and cents.

By Legal Accounting we mean such Accounting as will be sanctioned by a Court of Law and Equity, anywhere. We do not mean mere conformity to some local statute.

The Accounting must, therefore, be legal and the law must give general direction to everything that is done.

THE SEPARATE PARTS OF ACCOUNTING.

First. Record of facts.

The facts cannot be well recorded without first being properly classified. Classifications must be made with the main end in view; to-wit: the rights of the parties as determined by legal rules.

The expenses must be classified, before recorded, from a legal standpoint with reference to who are to pay the expenses, or upon whom the expenses are to fall in the legal method of Accounting.

The savings and profits must be classified, before recorded, with reference to the legal question as to whom they belong, considering the sources whence they emanated.

It is clear, therefore, that the record of and prior classifications of the facts must be made in subordination to the main end in view, and this constitutes the first step in Accounting.

Life Insurance Accounting should, therefore, present a complete system of double entry bookkeeping, arranged in the best way for determining the rights of the parties connected with the business.

Second. Mathematical deductions from the facts.

From the facts properly recorded, must be calculated the Legal Reserve which the Company should carry; the Contingency Reserve required

by the standard expressly or impliedly set up; the aggregate amount of profits or savings to be paid or credited to the Policyholders and the proportions in which these savings are to be distributed to the separate classes and individual Policyholders and Stockholders.

Valuations have for their object to determine how well the Company is carrying out the contracts and what are the dangers of insolvency and what are the probable profits or savings that the Company may make in the future and what its future is likely to be.

Third. Conclusions of Law.

After, in conformity to general rules of law, the facts have been properly classified and recorded and after, under these rules of law, the proper mathematical calculations have been made and the mathematical results ascertained, the law pronounces final judgment and determines the rights of the parties. This renders the Accounting complete and establishes the ends aimed at.

PLAN OF THIS WORK.

This work, therefore, sets out first a complete system of double entry bookkeeping, giving all the forms necessary and explaining their use.

The book then gives a complete treatment of the subject of the Contingency Reserve and explains its object and the nature of a standard of safety and how to determine the Contingency Reserve for any Company.

The book then takes up the subject of Dividend calculations and shows how under legal rules the Company ought to divide out profits to the Policyholders, and what are the relative rights of Policyholders and Stockholders.

The Book then takes up the subject of valuations and the subject of real and artificial insolvency and the correct method of testing the progress of the Company.

As a part of the general subject the book gives a complete form of Statement arranged with reference to the great end in view; to-wit: to ascertain the rights of the parties connected with the business. The form is complete, though not very long, and gives the things that are needed in order to ascertain the rights of the parties.

CHAPTER II.

LIFE INSURANCE BOOKKEEPING.

A correctly arranged double entry system of Life Insurance books constitutes an object lesson showing the practical working of the Company. No doubt the best education the student of Life Insurance can obtain is carefully to study well arranged double entry book forms and to follow the successive entries in the different books.

In the forms here given, the headings are so arranged as to suggest the forms of entries needed. A study of the form will explain how to make the entry.

The forms are sufficient for the most complicated and largest business, and yet substantially the same forms are needed for every business no matter how small.

Of course the forms may be slightly varied. In certain instances cards may be preferred rather than permanent books, but no matter what variations are made the main divisions if the records are complete must remain substantially as here given.

PECULIARITIES OF LIFE INSURANCE BOOKKEEPING.

We give here three keys which virtually unlock the whole system of Life Insurance Bookkeeping. They are as follows:

First. The contingent nature of the facts.

When a Company issues a policy of Life Insurance the Company becomes liable. In effect the Company has issued a bills payable, but this bills payable is subject to future unknown contingencies. In the individual case it is impossible to tell how these contingencies will turn out. The party may live 70 years. He may die tomorrow. In the individual case the Company does not know what its liability is.

This contingent nature of the facts is the controlling peculiarity of Life Insurance, or of Insurance in general.

As a result of these unknown future contingencies the policy as a bills payable cannot now be entered upon the books proper of the Company.

Similarly, the premium obligations are in effect assets of some sort belonging to the Company, yet these assets are subject to contingencies. The Policyholder is to pay premiums if he lives, but premiums are to cease at his death.

Thus the premium obligations due to the Company by any one Policyholder are unknown quantities and cannot be entered for their true value upon the books in the individual case at the time that the policy is taken out.

Thus it would seem that to a great extent the contingent facts of a Life Insurance Company are kept off of record. As individual facts so they are. But in aggregates they partially appear in net Legal Reserve liabilities.

From this contingent nature of a Life Insurance contract two important results follow:

A. The Life Insurance facts are facts in aggregate, or ratios, or averages.

These aggregate facts are made up of individual facts of course, but it is only the aggregate or ratios or averages that constitute the Insurance facts proper and that find their way to the general Ledger and that appear in the general Statement of the Company.

But to keep the run of the aggregate facts we must at the same time keep the run of the individual facts.

We have, therefore, the general Ledger and the individual Ledgers.

The General Ledger covers the Insurance facts proper or aggregates, and the Individual Ledgers as memoranda cover the individual facts which make up, but are not in themselves, parts of the insurance facts proper.

B. Auxiliary books. As another incident of the contingent nature of Life Insurance facts and as incidental to the fact that we cannot enter the contingent contracts in detail in full upon the books proper, we must keep memoranda of the contingent facts on Auxiliary books.

These Auxiliary books are in the nature of memoranda or facts preparatory to the facts that are to go into the Insurance records proper.

The application for instance is not a contract, but is merely a proposal for a contract.

The Policy Register when the policy is first issued does not represent a contract actually formed, but merely a memorandum of a policy

which may or may not be delivered and thus may or may not go into force. And so with other Auxiliary books.

Second. The system of Special Journals.

The facts in Insurance fall into a few distinctly marked classes such as the receipt of premiums, the receipt of interest, the payment of expenses, the payments to Policyholders, etc.

These classes are so well marked and the typical entry in each is so well marked that it is convenient to keep each in a separate Journal.

It will be noted too that the receipts of premiums and of interest and the payment of expenses and the payments to Policyholders are definite facts, certain, free from contingencies, and such as may be entered at once upon the books and cannot like contingent transactions be kept off the books.

In Life Insurance Bookkeeping, we therefore, keep the Special Journals hereafter named.

Third. The Agency System.

The Agency system is an integral and exceedingly important part of Life Insurance. In fact, it is the life of the whole business.

Yet the Agency system is simply a means to an end. The Agency books as a rule are auxiliary and not part of the books proper.

Yet the Agency system is so important that it needs to be separately provided for.

If the above distinctions are constantly borne in mind it is easy to see the identity between Life Insurance Bookkeeping and other forms of Bookkeeping, and the system becomes very easy.

LIST OF BOOKS.

We give here a general outline of the books needed in a complete system of Life Insurance Bookkeeping.

The books fall into three main classes:

First. The Insurance books proper. These contain all technical bookkeeping entries proper.

Second. Auxiliary books. These relate chiefly to preliminary facts and collateral facts which may grow into regular book entries or which explain regular book entries, but are not themselves yet technically book entries.

Third. Conveniences. These relate to re-classifications and deductions made from entries proper and are conveniences used in the Accounting.

INSURANCE BOOKS PROPER.

Income.....	(1)	The General Journal.
	(2)	The Premium Journal.
	(3)	The Investment Journal.
Disbursements...	(4)	The Expense Journal.
	(5)	The Insurance Terminated Journal.
	(6)	The Dividend Journal.
	(7)	Annuity and Supplementary Contract Books.
Machinery.....	(8)	Agent's Journal.
	(9)	The General Ledger.

AUXILIARY BOOKS.

(1) Application Register.
(2) Policy Register.
(3) Individual Policy Ledger Cards.
(4) Cash and Bank Memorandum Book.
(5) Individual Stock Book.
(6) Agency Ledger.
(7) Personal Ledger.

CONVENIENCES.

(1) Classified Insurance Written Books.
(2) Reserve and Dividend Calculation Books.
(3) Actual to Expected Mortality Calculation Books.
(4) Agent's Policy Memorandum Ledger.
(5) Agent's Note Account.
(6) Bills Receivable Memorandum Book.
(7) Bills Payable Memorandum Book.
(8) Investment Diary and Interest and Rent Book.
(9) Alphabetical indexes of Declined and Reduced Risks.

No confusion need arise from keeping several Journals any more than making different Journal entries on different pages of the same Journal.

If a Journal entry is made on the wrong Journal no harm is done except that it is inconvenient. The entry will find its way to the Ledger all the same.

Loose-Leaf books will be found most convenient for Insurance records.

We will take up in detail each of the foregoing books in the simplest order for practical explanation and use.

THE GENERAL JOURNAL.

On the General Journal should be entered all the facts at the beginning of the business and all the closing entries at the end of the year, or at the end of the business, and if desired, the monthly aggregates of all entries on the Special Journals.

On the General Journal will also be entered all the facts that do not properly fall in any of the Special Journals.

The ruling of the General Journal will be the same as the ordinary Journal in any other business; thus:

GENERAL JOURNAL.

Descriptions.	Debits.	Credits.

Otherwise the following form of General Journal is sometimes preferred:

GENERAL JOURNAL.

Debits.			Descriptions.	Credits.		

This is a partial adoption for the General Journal of what is known as the Columnar method, which we will extensively use.

The number of columns may be increased as much as we please, according to the extent we wish to classify, as Cash, Bank, Agent's Balances, Personal Accounts, etc., etc., to be written at the head of the Columns.

The opening entry, indicating the beginning of business, will be made upon the General Journal. The Assets of the Company will be debited to the Liabilities. The general form of the opening entry on the General Journal will be as follows:

Real Estate.
Real Estate Mortgages.
Bonds.
Stocks.
Collateral Loans.
Bills Receivable.
Personal Accounts.
Cash.
Other Assets. Dr.
To Bills Payable.
Personal Accounts.
Other Liabilities.
Capital Stock.
Stock Surplus.
Contingency Reserve.

At the end of each year when the books are balanced the accounts that are to be balanced into profit and loss should be so balanced and left upon the old books and into the opening entry of the new year should be brought nothing but the assets and liabilities as per the general form above given.

The Contingency Reserve, it will be noted, is not a liability in its proper sense, but must appear among the liabilities on the right side of the Ledger.

After the Company has commenced business there will appear, among the Assets, Policy Loans, Policy Liens, Premium Notes, and Agent's Balances, etc., and among the Liabilities, Policy Reserves and present value of other contracts, etc., but these will not appear in the

opening entry before business is begun. They may appear in the results brought forward at the beginning of any subsequent year.

In practice it will be convenient to sub-divide the foregoing classes into smaller classes.

We may show the different sorts of Real Estate Mortgages, the different classes of Bonds and Stocks, the different sorts of Bills Receivable and we should name the individual Stockholders and the different sorts of Surplus, if any.

These sub-classifications should appear on the General Journal and each sub-class should have its separate Ledger Account.

The entries in the General Journal will be posted to the General Insurance Ledger in exactly the same way as in any other business.

On the General Journal, as said above, will be entered not only the opening entry at the time of organization and the closing entries, but will be made also those entries in the conduct of the business that do not belong to any of the Special Journals.

We may also, if desired, transcribe to the General Journal each month the footings on all the Special Journals, thus accumulating in the General Journal the aggregate footings of all the business done by the Company. If we do this all postings to the General Ledger will be from the General Journal.

If, however, we do not carry the footings from the Special Journals to the General Journal we will post the footings directly from the Special Journals to the General Ledger.

We will postpone the explanation of the closing entries until we have considered the Special Journals and developed the general system.

After the opening entry upon the General Journal has been made the Company is ready for business and to receive Applications for Insurance. We will next, therefore, consider the Application Register.

THE APPLICATION REGISTER.

We give here a convenient form for the Application Register. It should contain all the material points in the Application.

It will be noted that the Application Register is merely Auxiliary. It does not express any contract as yet made and is not a part of the records proper. It is merely a memorandum of business proposed.

As soon as an application is received it should be entered on the Application Register and sent to the Medical Department.

The Application Register should be inspected frequently so as to keep track of the applications and to prevent delays in prompt action thereon.

All Rejected Applications and all Applications that have been altered or reduced by the Company to less favorable forms or amounts on account of the undesirability of the Risk should be indexed either by the Card system or by the usual indexes.

APPLICATION REGISTER.

Application.		Insured.					Policy.						Beneficiary.		Agency.			Local Physician.					Medical Director.					Policy Issued.		
Number.	Date.	Age.	Name.	Residence.	Occupation.	Other Insurance.	Kind.	Amount.	Premiums.	Dividends.	Other agreement.		Name.	Relation.	Name.	Address.	Settlement.	Name.	Address.	Report.	Folio.	Fee.	Date sent.	Date returned.	Report.	Folio.	Fee.	Date.	Number.	Remarks.

THE POLICY REGISTER.

As soon as the Application is approved by the Company the Policy should be written and at once entered on the Policy Register.

We give here a convenient form for the Policy Register.

The Policy Register is an Auxiliary Book. It is a memorandum Book and not a book of original entry. The Policy as a rule does not go into effect when it is registered, but only when the Premium is paid and the Policy delivered.

The Policy Register should be indexed alphabetically by cards or by the ordinary indexes.

All the material parts of the Policy should be copied upon the Policy Register.

The Policy should then be sent to the Agent to deliver the Policy and collect the Premium.

The Insurance Facts proper are the aggregate facts, but all along the line we need to note the two collateral streams,—the Individual Policyholder and the Agent.

From the Policy Register, therefore, we must transcribe collaterally to these two side streams.

We first call attention, therefore, to the Individual Policy Ledger Card and afterwards will explain the Agency System.

We will speak of "Posting" from the Journals to the General Ledger to indicate entries made in the General Ledger from the General or any of the Special Journals.

But we will speak of "Transcribing" to the collateral side streams and not "Posting."

POLICY REGISTER.

Policy.		Application.		Description of Policy.						Insured.			Beneficiary.		Agent.				Physicians.		Terminated.			
Number.	Date.	Number.	Date.	Age.	Kind.	Amount.	Premium.	How Payable.	Dividends.	Other Agreement.	Name.	Address.	Occupation.	Name.	Relation.	Name.	Address.	When Sent.	Delivery.	Local.	Med. Directors.	Date.	How.	Cause of Death.	Remarks.

THE INDIVIDUAL POLICY LEDGER CARD.

We give here a convenient form for the Individual Policy Ledger Card. This is an Auxiliary Ledger Account, or memorandum.

This Card should be written up as soon as the Policy is entered upon the Policy Register. There should be filled in the date, the form, the kind of Policy, the age, the amount, the Office Premium for annual, semi-annual and quarterly payments, the Pure and the Loading for the First year and Renewals, the name and address of the insured, and

the beneficiary and the relationship, the Agent and the Commission contract. These facts should be transcribed on the Card directly from the Policy Register.

The Policy Ledger Cards may be kept in numerical order.

If preferred, however, they may be kept by localities, or by Agencies.

Before the Premium is paid and the Policy delivered, that is to say, before the Policy is in force, the Individual Policy Ledger Card does not represent any contract and does not represent technically any Book entry.

Before the Policy goes into effect the cards may be kept, if desired, in a Provisional cabinet, but should be removed to the Existing cabinet as soon as the Premium is paid and the Policy delivered.

Or the card may be filed as soon as written, in the Existing cabinet. By Existing Policies we mean Policies in force.

When a Policy Terminates the card should be put in a Terminated Card cabinet for the year, to be used in classifying terminations for the year. At the end of the year the card should be placed in a permanent Terminated card cabinet.

Whenever a Premium or Dividend is paid, or whenever there is a change of beneficiary, or an assignment or a loan, or whenever the Insurance is Terminated, or whenever any change whatever takes place in the status of the Policy the Individual Policy Ledger Card should be at once procured and the data furnished upon the card should be used to make the entry on the books and the entry thus made on the books should in turn be transcribed at once to the Policy Card before it is replaced in its cabinet.

DIVIDENDS AND HOW PAID.						ADDITIONS OR DEDUCTIONS.		Dr. POLICY ACCOUNT. Cr.					
Yr.	Date.	Amount Declared.	How Paid.	Amount.	Accumulation.	Date.	Amount.	Date.	Description.	Amount.	Date.	Description.	Amount.

All premiums paid should be transcribed for their full amount on the face of the card. All Dividends, Liens, Notes, Loans and all payments on account of the same should be transcribed on the back of the card.

It will be noted that all the Insurance facts proper that appear on the Policy Ledger card appear also in the General Ledger in aggregates.

The Policy Ledger Card is thus a mere copy or memorandum or transcription, bringing together in one place all the facts relating to this Policy. The Policy Ledger Card is not part of the Insurance books proper. It relates to one of the side streams only. It represents in part some of the itemized particulars the aggregates of which constitute the Insurance Facts proper.

If entries of one transaction have to be made upon more than one book the Individual Policy Ledger Card should be carried from book to book so as to furnish the facts to be entered, thus saving the inconvenience of having to copy from one book to another.

In the case of a short term or of increasing or diminishing premiums memoranda may be made on the back of the card or under Memoranda on the front of the card, or perhaps still better, the ruling of the card varied to meet the peculiarities of the case. But the possible varieties are too great for us here to go into further detail.

The Policy Ledger Card thus represents in part one of the collateral streams connected with the Aggregate Insurance Facts. The other collateral stream is the Agency system.

We, therefore, take up next the Agency System.

AGENT'S POLICY MEMORANDUM LEDGER.

On the Policy Register the Policies are entered in numerical order. (Indexed by Number.)

On the Individual Policy Ledger Cards the Policies are re-arranged according to the Policyholders. (Indexed by Policyholders.)

On the Agent's Policy Memorandum Ledger the Policies are re-arranged according to Agents. (Indexed by Agents.)

We give here the form of the Agent's Policy Memorandum Ledger.

We transcribe from the Policy Register directly to the Agent's Policy Memorandum Ledger.

The Policy Memorandum Ledger is a mere Memorandum. It does not before the Premium is collected represent a charge against the Agent, but represents merely that the Policy has been sent to the Agent for the Agent to collect the Premium and deliver the Policy and remit the Premium to the Company when the Premium is collected.

The Agent owes nothing until the Premium is collected. The case is exactly analogous to the Company's sending a note to the Bank to be collected, with the instructions to send the proceeds as soon as collected back to the Company. The Bank owes nothing until the note is collected.

If the Agent collects the Premium and fails to remit it the Agent will owe the Premium to the Company, but not until then.

When the Premium is paid by the Policyholder to the Agent and the Policy delivered, the contract goes into effect. The Company then becomes bound as between the Company and the Policyholder, and the Premium must be at once entered on the Premium Journal whether the Agent remits to the Company or not. If he fails to remit he must be charged the amount.

AGENT'S POLICY MEMORANDUM LEDGER.

Name of Agent. Address.

Descriptions.					Debits.							Credits.								
								Premiums.												
Date.	Number.	Kind.	Insured.	Amount Policy.	Date.	Descriptions.	Sundries.	Short.	Regular.	Interest.	Totals.	Date.	Descriptions.	Sundries.	Dividends.	Commissions.	Liens.	Cash.	Notes.	Not taken.	Total.

From the Premium Journal we transcribe directly to the Agent's Policy Memorandum Ledger.

The debit side of the Agent's Policy Memorandum Ledger (Transcribed from the Policy Register), thus shows the sending the Policy to the Agent for him to deliver the Policy and collect the Premium, and the credit side, (transcribed from the Premium Journal) shows the settlement.

From the Agent's Policy Memorandum Ledger we find the Policies in the Agent's hands unreported on.

THE AGENT'S NOTE MEMORANDUM BOOK.

The Agent is considered by the Company as in effect an endorser on all notes sent in by him.

If this is the agreement between the Company and the Agent the Agent will be liable for the amount even though strictly he cannot be sued upon the note, unless he actually endorses it.

The endorser is liable if a note is not paid when due.

Thus, the Agent is contingently liable on all the notes he sends in to the Company.

The Company should, therefore, keep for its own protection a classified list of the notes by Agencies.

This is the object of the Agent's Note Memorandum Book.

AGENT'S NOTE MEMORANDUM BOOK.

NOTES ON WHICH AGENT IS CONTINGENTLY LIABLE.							PAYMENT ON NOTES.				
Date of Entry.	Date of Note.	Date Due.	No. of Policy.	No. of Note.	Description.	Amount.	Date.	No. of Policy.	No. of Note.	Description.	Amount.

Whenever a note is received by the Company from the Agent it is transcribed on the debit side of the Agent's Note Account, indicating a possible liability on the part of the Agent in respect to the note.

When the note is paid, or when there is a partial payment the fact should be transcribed on the credit side of the Agent's Note Memorandum Book.

When two sides balance the Agent's Note Account is clear.

The Agent's Note Memorandum Book is a mere memorandum. It is merely a re-arrangement of the list of Bills Receivable (Premium Notes) by Agencies.

THE AGENT'S JOURNAL.

If the Company deals extensively through its Agents, particularly if it keeps a running account with its Agents, it will be advisable to keep a special Agent's Journal.

We give here the form of such a Journal.

This Journal is a book of original entry.

The Agent's Balances only, as shown at the foot of the columns, will be carried forward to the General Ledger, as these aggregate results are all that belong to Insurance Books proper.

But collaterally we will transcribe to the Agent's Individual Ledger.

AGENT'S JOURNAL.

DEBITS.								CREDITS.						
Date.	Descriptions.	Agent.	Cash.	Bank.	Interest.	Bills Receivable.	Sundries.	Descriptions.	Agent.	Cash.	Bank.	Interest.	Bills Receivable.	Sundries.

The Agent's Individual Ledger thus gives itemized particulars of which the Agent's balance in the General Ledger is the aggregate.

AGENT'S INDIVIDUAL LEDGER.

An Agent's Ledger of the usual form may be kept showing the individual accounts, which accounts represent the itemized particulars that appear as general Agent's Balances on the General Ledger.

THE AGENCY SYSTEM IN GENERAL.

The Company thus deals with the Agent in three distinct capacities: as a Banker to collect the Premiums, as a quasi endorser on the Notes sent in by the Agent, and personally in his individual capacity.

First. The Agent's Policy Memorandum Ledger. This shows the dealing with the Agent in the light of a Banker to collect the Premiums for the Company and to remit to the Company.

The debit side of the Agent's Policy Memorandum Ledger (transcribed from the Policy Register), shows the number and descriptions of the Policies sent to the Agent to collect the Premiums. The credit side, (transcribed from the Premium Journal), shows the settlements. The Account thus shows also what is unsettled for by the Agent.

This is thus an Account with the Agent as the collecting Banker of the Company.

Second. The Agent's Note Memorandum Book. This Book deals with the Agent as the quasi endorser of the premium notes sent in to the Company by the Agent and upon which the Agent may become actually liable to the Company. It is thus the Agent's Contingent Liability Note Account.

Third. The Agent's Personal Account. This Account deals with the Agent as an actual debtor or creditor. The actual advances to the Agent and all actual moneys paid to the Company on the Agent's Account will come in the Agent's Personal Account.

The Agent's Policy Memorandum Ledger matures into an actual Personal Account as soon as the Agent collects the Premium and fails to remit.

The Agent's Note Memorandum account matures into an actual personal account as soon as the note matures and is unpaid.

Suppose we wish to know the standing of an Agent at any time:

We first examine his Personal Account to see what are his actual debits or credits or what is his actual balance at the present time.

We next examine his Policy Account to see how many Policies he has on hand unsettled.

We next examine his Note Account to see how much he may possibly become liable to the Company upon as endorser, that is to say, what is his contingent Note Liability Account and what is the probability of the contingencies becoming actualities. From these three accounts together the Agent's standing is to be measured.

From these three Accounts taken together the Company must make up its mind how to deal with the Agent.

If the Policies are all settled for and the Notes are all paid there is nothing left to consider but the Agent's individual personal account.

But if there are a good many Policies unsettled for and a good many notes unpaid the Company may hesitate about making further advances to the Agent on his Personal Account.

All this is a matter of judgment for the Company from the three Accounts taken together.

OTHER AGENCY SYSTEMS.

Some Companies will not accept notes at all, particularly notes for first premiums. If an Agent sends in a note the Company may, as an accommodation or for the protection of the Company, hold the note and collect it as the property of the Agent. Such notes will not go into the Bills Receivable of the Company, but will simply represent notes held by the Company to be collected for the Agent's Account.

In all such systems the Agent will be credited with the collection when made. The entries are too simple to require further explanation.

THE PREMIUM JOURNAL.

The two great sources of income in a Life Insurance Company are the premiums and interest, (including rents).

The Premium Journal is of special importance because an entry upon the Premium Journal means in general that the policy goes into force by virtue of the facts represented by this entry. The Premium Journal shows the "Paid for Business put upon the Books." It is a book of original entry.

We give here the form of the Premium Journal.

As soon as the Agent has a settlement with the Policyholder and collects the premium and delivers the policy, the policy goes into effect and the contract is closed and in justice to the Policyholder and to record the liabilities against the Company these facts must be shown at once by an entry upon the Premium Journal, whether the Agent has remitted to the Company or not.

If the Agent does not remit that is a matter between the Company and the Agent, with which the Policyholder has nothing to do. If the Agent does not remit the Company must charge the Agent and enter the premium as paid.

Moreover, the premium entry must be complete in every respect. It must be in regular double entry form, stating all the debits and all the credits and these must balance each other in each entry.

The first thing to do is to get the Policy Ledger card.

From the facts upon the card the description, that is to say, the descriptive columns in the Premium Journal, must be filled out identifying and describing the policy.

We must then make the Journal entry proper.

We must fill the appropriate columns on the debit side.

If there is a dividend the amount must be inserted in the dividend column.

PREMIUM JOURNAL.

DESCRIPTIONS.			DEBITS.			CREDITS.								DEFERRED.				PAID OUT OF DUE DATE.			
								Premiums.						From Last Year.		Till Next Year.		Due Next Year.		Due Last Year.	
								New.		Renewal.											
Date.								Pure.	Load.	Pure.	Load.			Pure.	Load.	Pure.	Load.	Pure.	Load.	Pure.	Load.
Agent.																					
Insured.																					
Policy	Number.																				
	Kind.																				
	Amount.																				
Premiums.	Year.																				
	Fraction.																				
	Amount.																				
	Date Due.																				
Date Paid.																					
Description.																					
Sundries.																					
Dividends.																					
Commissions.	New.																				
	Renewal.																				
Cash.																					
Policy Loans.																					
Policy Liens.																					
Premium Notes.																					
Agents.																					
Surrender Values.																					
Profit and Loss.																					
Descriptions.																					
Sundries.																					
Interest.																					
Premiums.	New.	Pure.																			
		Load.																			
	Renewal.	Pure.																			
		Load.																			
Agents.																					
State.																					
DEFERRED.	From Last Year.	Pure.																			
		Load.																			
	Till Next Year.	Pure.																			
		Load.																			
PAID OUT OF DUE DATE.	Due Next Year.	Pure.																			
		Load.																			
	Due Last Year.	Pure.																			
		Load.																			

If there are any commissions they must be at once entered whether the Agent has remitted the money or not, and no matter how the account stands between the Company and the Agent. The commission liability, whether certain or contingent, attaches at once against the Company and must be at once entered. If the Commission liability is contingent this will be shown in the Agent's Personal Account or his Note Account.

The cash received must be put in the Cash column on the debit side.

If there are any Liens or Notes given in payment of the Premiums they must be inserted in the Lien or Note columns on the debit side.

If the Agent fails to remit in full, the balance due by him must be inserted in the Agent's column on the debit side and the Agent's name written in the column headed Descriptions. That is, the Agent must be charged.

On the credit side we must enter the Premium in the New or Renewal columns, as the case may be, separating into Pure and Load as indicated in the form.

If any interest is paid it must go in the Interest column.

If the Agent overpays, enter to his credit in Agent's Credit column.

Further to the right will be found the State received from, which is to be filled in, and still further to the right columns indicating Deferred Premiums and Premiums paid otherwise than when due.

These columns sufficiently explain themselves. They are used to ascertain exactly the Premiums belonging to the calendar year in question, or to any given period.

Entries upon the Premium Journal will thus be the same as in any other regular Double Entry Bookkeeeping, except that we simply enter each numerical item in its appropriate column, instead of having to write out the description.

The aggregate footings at the bottom of the pages will indicate the aggregate facts which constitute the Insurance facts proper.

These aggregate results are all that will be posted to the General Ledger.

But here, as in all cases, we need to take note of the two collateral streams: the individual Policyholders and the Agency System.

From the entry in the Premium Journal we transcribe collaterally, to the Individual Policy Ledger Card, the full Premium on the front of

the card and the Dividend on the back of the card. Also, if a note or lien is given we transcribe the note or the lien in the General Policy Account on the back of the Individual Policy Ledger Card, as a memorandum against the Policyholder.

It is noted that all these individual entries on the Policy Ledger Cards are simply memoranda. They are the itemized particulars of which the aggregates go to the General Ledger.

The Individual Policy Ledger Card is never expected to balance.

The Premiums paid by the Policyholder are not expected to balance the death losses or other claims paid under the individual policy.

When the notes or liens are paid memoranda should be transcribed upon the credit side of the Policy Account on the individual Policy Ledger Card.

Similarly from the Premium Journal we transcribe the settlement to the Agent's Policy Memorandum Ledger, as an offset to the Premium charge for collection already entered against the Agent there.

It will be noted that the word Premium as here used means Premium Obligation Receivable for it is the Premium Obligation Receivable that is parted with by the Company and that is discharged by the Policyholder.

We call attention to the columns "Policy Year" and "Fractions" in the Premium Journal.

In the column "Year" we must insert the Policy year.

In the columns "Fractions" we must insert the fractional Premium that is now being paid.

If it is the second Policy Year we put 2 in the column "Year." If the payment is annual we put 1 in the column headed "Fractions," indicating a full annual Premium and not a fractional part.

If the Premium is payable semi-annually and the first semi-annual payment is now being made we put ½ in the column headed "Fractions" indicating that the first half is now being paid.

If the second semi-annual payment is now being made we put $^2/_2$ in the column headed Fractions, indicating that the second semi-annual payment is now being made.

If it is the fifth Policy year and if the third quarterly Premium is now being paid, 5 goes in the column headed "Year" and ¾ in the column headed "Fractions."

In transcribing the payments to the Individual Policy Ledger Cards we transcribe on the card at the end of the period to which the Premium pays.

Thus, if it is the seventh year and first quarter we post in the seventh year and in the first of the four spaces.

If it is the third year and the third quarter we post in the third year and in the third of the four spaces.

If it is the first year and an annual payment we post in the first year and in the 4th space, indicating that the Premium is paid to the end of that period.

Always put the payment in that sub-division to the end of which the payment covers.

We will now give some illustrations of actual Premium entries.

Suppose the first annual Premium is $100, Commission $50, and suppose the Agent sends $50 to balance:

We first get the Policy Card and turn to the Premium Journal.

The description must be filled in the Descriptive columns of the Premium Journal, giving the date, name of the Agent, name of the Insured, Number of the Policy, the kind and the amount and the Policy year, and the fractional payment and the amount of the Premium and the date due.

The regular Journal entry will be as follows:

$50		Commissions,	
50		Cash.	Dr.
	To $75	Pure first Premium	
	25	Load.	

The foregoing is the complete Double entry.

We need only to insert each item in its appropriate place in the Premium Journal.

Collaterally we will transcribe to the Individual Policy Ledger Card the payment of the $100 Premium.

Collaterally also we will transcribe to the Agent's Policy Memorandum Ledger the settlement for the Premium collection, to-wit: $50 Commission, and $50 Cash.

Only the aggregate footings in the Premium Journal at the end of the month will go forward to the General Ledger.

Again, suppose the First Premium to be $100 and Commissions $50, and suppose the Agent fails to remit, but requests that the Company charge to his Account:

After filling in the descriptions in the Premium Journal as before, the entry will be:

$50		Commission.	
50		Agent.	Dr.
	To $75	First Premium Pure.	
	25	Load.	

Collaterally we transcribe to the Policyholders Individual Policy Ledger Card the $100 Premium payment exactly as before.

Collaterally also we transcribe to the Agents Policy Memorandum Ledger, $50 Commission, and $50 charge to the Agent.

This $50 charge to the Agent is an "Agent's Balance" appearing in the Premium Journal and will be included in the aggregate footings at the end of the month, which find their way to the General Ledger.

We must also transcribe this same $50 as a memorandum to the Agent's Individual Ledger. The accounts upon the Individual Agent's Ledger thus constitute the itemized particulars of the General Agent's Balances appearing on the General Ledger.

Again, suppose the first Premium is $100, and Commission $50, but suppose the Agent accepts a note of $100 from the Policyholder and sends the whole note to the Company for the Company to collect the note (the note to become the property of the Company), and account to the Agent for his Commissions:

The entry will be:

$ 50		Commissions.	
100		Premium Note.	Dr.
	To $75	First Premium Pure.	
	25	Load.	
	50	Agent.	

As said above, always charge Commissions when the settlement is made with the Policyholder by the Agent, no matter what may be the nature of the settlement between the Company and the Agent. The liability for Commissions (certain or contingent) attaches to the Company and must be shown of record at once. If contingent this will be shown on the Agent's Personal or Note Account.

We thus enter Commissions at once on the Debit side as soon as the Policy goes into effect.

Collaterally we transcribe to the Individual Policy Ledger Cards the settlement of the Premium, $100 for the exact amount of the Premium, but on the back of the card we also transcribe that the Policyholder has given a note of $100. This is put on the debit side of the General Policy Account on the Ledger Card. When this note is paid the payment will be transcribed on the credit side of the General Policy Account on the Ledger Card. The premium credit then becomes absolute.

Collaterally also we transcribe the settlement as a memorandum to the Agent's Policy Memorandum Ledger.

But there remains to post the Note of $100 to the Agent's Note Account as a memorandum on which the Agent may become liable if the Policyholder fails to pay, that is to say, on which the Agent is contingently liable. This will show the contingent nature of the Commissions.

When the note is paid the fact will be transcribed on the Agent's Note Account and this will render the Agent's credit of $50 absolute.

Again, suppose $100 First Premium, Commissions $50, a lien taken by the Company for $25, and cash remitted by the Agent $25.

The entry will be:

$50		Commissions.	
25		Liens.	
25		Cash.	Dr.
	To $75	First Premium Pure.	
	25	Load.	

Collaterally we transcribe to the Individual Policy Ledger Card the full settlement of the Premium, $100 for the exact amount of the Premium, and on the back of the card we transcribe the lien, $25. We here use the word Lien to cover such liens as are included in a general contract where there is no one note specially given to represent the debt.

Collaterally also we transcribe to the Agent's Policy Memorandum Ledger as before.

Again, suppose $100 Premium, Commissions $50, Lien $25, this lien being allowed under some general contract, and suppose the Policyholder gives a note of $75 for the full $100 less the lien, and suppose the

Agent remits the $75 note to the Company to become the property of the Company; the entry will be:

$50	Commissions.	
25	Lien.	
75	Premium Note.	Dr.
To $75	First Premium Pure.	
25	Load.	
50	Agent.	

Collaterally we will transcribe to the Individual Policy Ledger Card the full settlement of the $100 Premium. On the back of the card we will transcribe the lien of $25, and the Premium Note of $75.

Collaterally also we will transcribe the settlement to the Agent's Policy Memorandum Ledger.

We will also transcribe the note of $75 to the Agent's Note Account as a memorandum. When the Agent's Note Account shows that the $75 note is paid the Agent's Commission, $50, will be absolute.

Again, when the Agent takes the Application suppose the Policyholder gives his note for $100 the first Premium, and takes from the Agent a receipt showing that the Policy shall go into effect as soon as the application is approved, the note to become the property of the Company.

In this case we cannot credit the Premium at once because as yet the application has not been acted upon and there cannot be a Premium payment as such before the application has been approved.

We will debit this note to Suspense Account on the Premium Journal and hold the matter in abeyance until the application is approved. As soon as it is approved we will charge Suspense Account to the Premium, thus balancing the Suspense Account and making the entry complete.

The two entries on the Premium Journal will be as follows:

$100	Premium Note,	Dr.
To $100	Suspense (Sundries column).	

When the application is approved the entry will be as follows:

$ 50	Commissions.	
100	Suspense (Sundries column),	Dr.
To $75	First Premium, Pure.	
25	Load.	
50	Agent.	

Suspense on the credit side of the first entry balances Suspense on the debit side of the second entry, and thus the entire transaction is shown.

The collateral transcribing to the Individual Policy Ledger Card and to the Agent's Policy Memorandum Ledger will be the same as before. The note of $100 will be transcribed to the Agent's Note Account, and when the note is paid his credit of $50 will be effective.

If the application should be declined, the entry would be:

$100	Suspense.	Dr.
To $100	Premium Note,	

simply reversing the first of the above entries.

Again, at the time that the application is taken suppose the Agent collects the whole of the first Premium, $100 cash, and gives a receipt to show that the Policy shall go into effect as soon as the application is approved; deducts $50 as his commissions, and sends $50 cash to the Company.

The entry will be:

$50	Cash.	Dr.
To $50	Suspense.	

As soon as the application is approved the entry will be:

$50	Commissions.	
50	Suspense.	Dr.
To $75	Pure First Premium.	
25	Load.	

The collateral posting will be as usual, but there will remain neither debit nor credit to the Agent.

If the application should be declined the entry would be:

$50	Suspense Account.	Dr.
To $50	Bank,	

if a check is sent to the applicant, or the Agent for the applicant.

Again, suppose a Renewal Premium of $100, with Commissions $10, Dividend $15, Lien $25 and Cash $50:

The entry would be:

$10	Commissions.	
15	Dividend.	
25	Lien.	
50	Cash.	Dr.
To $75	Pure Renewal Premium.	
25	Load.	

The collateral transcribing to the Individual Policy Ledger Card and to the Agent's Policy Memorandum Ledger, if collected through the Agent, will be as usual.

Again, suppose a Surrender Value of $100, and suppose the whole of that Surrender Value is used to purchase Paid-up Insurance:

An entry should be made upon the Premium Journal for the Surrender Value is used as a Premium. The entry should be:

$100	Surrender Values.	Dr.
To $100	Pure New Premium.	

The transcribing to the Individual Card would be as usual.

The foregoing are taken simply as usual types. The principle is identical in all of them. We make the entries as if we were keeping ordinary Double Entry books, and insert each numerical item in its appropriate column.

To cover cases in which the premium payment may be mixed up with other accounts in one settlement, columns headed "Sundries" are provided on both the debit and credit sides, so that no matter how the premium payment may be mixed up with other transactions, all the transactions can be entered as one transaction on the Premium Journal. If necessary we may use several lines for the purpose.

On the Premium Journal we should give separate pages or divisions to the following:

First year's premiums original insurance.
First year's premiums original annuities.
First year's premiums changed generally.
First year's premiums dividend additions.
First year's premiums paid-up insurance.
First year's premiums extended insurance.
First year's premiums supplementary contracts—life.
Renewal premiums insurance.
Renewal premiums—annuities.

Re-insurance should also be kept on a separate page in the Premium Journal, the debit and credit sides swapping places.

Revived Insurance may also be kept on a separate page or division. With regard to the Sundries columns in all the Journals, it is evident that the particulars must be posted to the General Ledger, as there can

be no real account on the Ledger with Sundries. But there need be very few entries in the Sundry columns.

THE INVESTMENT JOURNAL.

The Premium Journal and the Investment Journal constitute the two great sources of Income. We have considered the Premium Journal. We take up next the Investment Journal, of which we here give the form. This is a book of Original Entry.

In all the forms we leave columns headed Sundries, to cover entries not especially provided for in the other columns.

Such Personal Accounts as we desire to go in aggregate to the General Insurance Ledger will be entered in the Personal Account column.

Collaterally we will transcribe to the Personal Ledger itemized particulars of these aggregate Personal Accounts.

Likewise with the other Accounts which may appear in the Investment Journal, such as Policy liens, Policy loans, Premium Notes, etc. With regard to each of these collaterally we will transcribe individual memorandum at the appropriate places in the collateral Auxiliary Books.

We may introduce if we wish in the Investment Journal additional columns on both the debit and credit side for Real Estate, Real Estate Mortgage Loans, Stocks, Bonds, and other classes of Assets.

As the entries involving large amounts, such as Stock and Bond deals and Real Estate deals, occur infrequently it is generally preferable to enter these amounts in the Sundries column, giving the description in the Description columns.

The Investment Journal is designed for regular Double Entry Bookkeeping, each entry to be made in its appropriate column.

Thus, if $50 cash is paid in discharge of a Policy lien, the entry will be:

$50	Cash.	Dr.
To $50	Policy Lien,	

the cash being entered on the debit side and the Policy lien on the credit side.

If a check for $1,000 is given in payment on Real Estate, we enter the Real Estate under Descriptions on the debit side and in the Sundries column $1,000 and $1,000 on the credit side in the Bank column on the credit side.

INVESTMENT JOURNAL.

DEBITS.														CREDITS.											
Date.	Descriptions.	Sundries.	Personal Acct.	Cash.	Bank.	Bills Receivable.	Bills Payable.	Policy Liens.	Policy Loans.	Premium Notes. First.	Premium Notes. Renewals.	Interest.	Profit and Loss.	Descriptions.	Sundries.	Personal Acct.	Cash.	Bank.	Bills Receivable.	Bills Payable.	Policy Liens.	Policy Loans.	Premium Notes. First.	Premium Notes. Renewal.	Interest.	Rents.	Profit and Loss.

It is not necessary further to illustrate these simple entries. Anyone ordinarily familiar with Double Entry Bookkeeping will find no difficulty in this branch of the subject.

The postings to the General Ledger will be the monthly footings of the different columns.

The Sundries column, of course, must be separately posted to the General Ledger.

This posting of the aggregates to the General Ledger, coupled with the collateral transcribing as memoranda to the individual accounts in the Auxiliary Books, completes the entries.

We need to be careful not to omit any of the collateral transcribing.

But even if we were to omit the collateral transcribing, our main books would still balance and be correct.

We might be put to a good deal of inconvenience, however, in making out the Individual Accounts.

Suppose, for illustration, a First Premium note is paid, on which the Agent is considered liable.

We need to enter Cash to Premium notes in the Investment Journal.

We need to transcribe the payment of the note on the Individual Policy Ledger Card.

We need to transcribe the payment on the Agent's Note Account.

We need to cancel the note on the Bills Receivable Book.

To omit any one of these may cause annoyance and delay in making out personal accounts in the future and yet there would be no mistakes in the aggregate Insurance Books proper.

All mortgages, collateral loans, bonds, stocks, policy loans, premium notes, bills receivable, etc., will, of course, be entered in order of date received in the Journals.

In order to keep the run of the due dates and an alphabetical list, abstracts of each note or other evidences of debt should be made on loose-leaf sheets about 5 x 8, one original and one carbon copy being made of each, or if preferred, one original and two carbon copies. The abstracts should show all particulars needed. It is not necessary to give the form.

These copy abstracts may be filed, one set according to due date, one set alphabetically and if a third set is desired, this third set may be filed according to the date of the papers. The latter, however, is sufficiently covered by the Journal entry.

These loose-leaf abstracts in the above orders should be kept in loose-leaf books.

The securities themselves may most conveniently be kept filed according to due date.

In addition to the above each long-time security such as a mortgage note or long-time loan should have a separate special Ledger account upon which separate columns should be provided for interest payments and the payments on principal, for fire insurance and for rents and repairs, etc.

As these forms have nothing peculiar to do with insurance we refer the reader to Real Estate Mortgage Loans Companies, Real Estate Companies and Banks for the best forms. The forms are simple and the reader's ingenuity may easily suggest suitable forms for the purpose.

These may be considered different forms of the Bills Receivable and Bills Payable Books.

THE EXPENSE JOURNAL.

We come, now, to the subject of disbursements.

The chief disbursements fall into two great classes, expenses and payments to Policyholders.

The object of all Accounting, and therefore the object of all classifications for the purposes of record, is to ascertain the rights of the par-

ties interested in the business. The classifications of expenses, therefore, should be guided by the question, whom the expenses are to fall on.

Without going into detail, it is plain that commissions ought to fall on the premium in respect to which the commissions are charged and thus on the Policyholder who has to pay the premium.

Expenses of Premium Collection in general which relate, so far as we know, not to any individual premium, but to all premiums alike, should be charged against all premiums as a percentage and thus fall on the premium-paying Policyholders as a class. After the premiums are completely paid, the Policyholder should be charged nothing further for the expenses of Premium collection.

Expenses which relate to the Company as a whole and which, so far as we know, do not relate to any individual thing or Policyholder or class rather than to any other, may appropriately be called Expenses of General Administration and should be charged against all Policyholders in the Company.

Expenses of handling the funds should be charged against the funds and will thus reach the individual Policyholders in proportion to their respective reserves, as it should.

The Expense Journal is, therefore, divided into three parts:

1st. The expenses of premium collection.

2d. The expenses of general administration.

3d. The expenses of taking care of the funds.

These three classes of expenses should be kept in a loose-leaf journal with tabs indicating the locality of each class.

The subject of proper classifications of expenses will be more carefully considered under Dividend Calculations.

The expenses of premium collection should include commissions, agency salaries, rents for agency purposes, agency supervision, agency traveling expenses, agents' licenses and other agents' expenses.

Medical expenses are not properly chargeable against premiums or in proportion to premiums. But Medical expenses, like commissions on first premiums, belong to first year's expenses and do not belong to the general yearly running expenses of the Company. The Medical expenses may thus be considered as a tax upon the first premiums and the practical results in dividends to Policyholders will be practically the same

as if charged against all Policyholders alike. We, therefore, put Medical expenses as part of premium collection.

Under the expenses of general administration will fall the salaries of home and branch officers, rents for general purposes, furniture and fixtures, general licenses to do business, general insurance taxes, traveling for general purposes, postage, telegrams, express charges, exchange, messages, printing, stationery, advertising, Stockholders' dividends, Directors' expenses, general legal expenses and all expenses that relate to the Company as a whole or that cannot be related to any particular person or thing or class.

The expenses of taking care of the funds include taxes, on real estate and other funds, repairs, traveling expenses for looking after the funds, legal expenses of foreclosure or protecting the funds, settling claims, losses and depreciation in the value of the funds and other expenses of handling the funds.

We give here the forms of the Expense Journal for each of the three classes of expenses. The entries should be in regular double entry form. The aggregate footings only at the end of the month in each general column will go forward to the General Ledger.

The sundries column will, of course, be individually posted to the General Ledger.

Collaterally as usual we will transcribe such of the individual items as we desire as memoranda to the Auxiliary individual accounts.

The Expense Journal is of course a book of original entry.

Suppose the salary of the Superintendent of Agencies is paid by check on Bank. We turn to the Expense Journal, Premium Collections, etc., and enter:

$200	Salary Account—Agency.	Dr.
To $200	Bank.	

Collaterally we transcribe to the Personal Ledger, if we desire.

Suppose the President's salary is paid. We turn to Expenses of General Administration and enter:

$250	Salary Account—President.	Dr.
To $250	Bank.	

Collaterally we transcribe to the Personal Ledger, if desired.

Suppose a fee for Mortgage foreclosure is paid. We turn to Expense of Handling the Funds and enter:

$100	Legal Expenses.	Dr.
To $100	Bank.	

Collaterally we transcribe to the Individual Account, if desired.

The aggregate footings only go forward into the General Ledger.

These entries are so simple, further illustration is not necessary.

EXPENSES OF PREMIUM COLLECTION.

DEBITS.													CREDITS.			
			Commissions.		Agency.						Medical.					
Date.	Descriptions.	Sundries.	New.	Renewals.	Salaries.	Rents.	Supervision.	Traveling.	Licenses.	Advertising.	Medical fees and Salaries.	Inspection.	Descriptions.	Sundries.	Cash.	Bank.

EXPENSES OF GENERAL ADMINISTRATION.

DEBITS.															CREDITS.			
Date.	Descriptions.	Sundries.	Salaries Home and Branch Offices.	Rents for General Purposes.	Furniture and Fixtures.	General Licenses.	Insurance Taxes.	Licenses and Department Fees.	Traveling for General Purposes.	Postage, Telegrams, Express, Messages.	Printing and Stationery.	Stockholders' Dividends.	Legal Expenses.	Investigating and Settling of Claims.	Supplementary Contracts.	Descriptions.	Sundries.	Cash.	Bank.

EXPENSES OF TAKING CARE OF THE FUNDS.

DEBITS.									CREDITS.			
			Taxes.									
Date.	Descriptions.	Sundries.	Real Estate.	Other Funds.	Repairs.	Traveling Expenses.	Legal Expenses.	Profit and Loss.	Other Expenses.	Descriptions.	Sundries.	Cash.	Bank.

THE INSURANCE TERMINATED JOURNAL.

Having considered Disbursements on account of expenses, we now consider Disbursements in the shape of Payments to Policyholders.

We consider, first, the Insurance Terminated Journal. We here give the form for the Insurance Terminated Journal. This is a book of Original Entry.

In the Insurance Terminated Journal we should keep separate divisions for:

Whole Life Insurance.
Endowment Insurance.
Term Insurance.
Miscellaneous Insurance,

and with respect to each of the foregoing divisions we should sub-divide as far as applicable as follows:

Terminated by Death.
Terminated by Maturity.
Terminated by Expiration.
Terminated by Surrender.
Terminated by Lapse.
Terminated by Change.
Terminated by Not Taken.

These sub-divisions are easily made in loose-leaf Journals by controlling Tabs for the large divisions and subordinate tabs for the smaller divisions.

The Descriptive columns in the form of the Insurance Terminated Journal are quite complete (see the form), as they must be to give the necessary information for the entry.

We note columns for the date Terminated and the Policy year and the fraction. This information is needed to determine the Reserve and Surrender Value and the amount of Deferred Premiums chargeable against the Policy, if any.

INSURANCE TERMINATED JOURNAL.

Kind of Policy.																How Terminated.																			
DESCRIPTIONS.																DEBITS.				CREDITS.															
																							Debts Cancelled				Used to Pay Premiums.							
Date of policy.	Policy number.	Kind.	Premiums.	Insured.	Address.	Age at issue.	Date terminated.	Policy year.	Fraction.	Original amount.	Additions.	Deductions.	Amount of policy.	Reserve.	Surrender value.	Date.	Descriptions.	Sundrios.		Descriptions.	Sundries.	Bank.	Sundries.	Policy liens.	Policy loans.	Premium notes.	Deferred Prems.	Sundry Ins.	Paid up additions.	Paid up Ins.	Extended Ins.	Annuities.	Supplementary Contracts.	Revived.	

We also note columns for the Reserve and Surrender Values. The ratio between the aggregate Surrender Value and the aggregate Reserve shows the percentage of Surrender Value to the Reserve, and thus the profit by the Company from Surrenders and Lapses.

The entries on the Insurance Terminated Journal must be in regular Bookkeeping form, as on all the Journals.

If there is no Surrender Value and, therefore, nothing paid to the Policyholder, still the Insurance Terminated should be entered at its proper place, notwithstanding the fact that the debit and credit columns will remain empty with respect to this entry.

The debit side on the Insurance Terminated Journal will be either a Death Loss or a Matured Endowment or a Surrender Value.

The credit side will be a check equivalent to cash, or it will be Debts cancelled, such as Bills Receivable, Policy Loans, Policy Liens, Premium Notes or Deferred Premiums, or it will be Surrender Values used as Premiums to purchase other Insurance, or it will be combinations of these.

If surrender values are used to purchase Paid-Up or Extended Insurance or Annuities we have a "Change" from one form of Insurance to another and this means the termination of the one kind and the issuance of another kind of Insurance.

The transaction is thus double and for completeness should be entered on both the Insurance Terminated Journal and the Premium Journal.

Only the aggregate footings at the end of the month will go forward to the General Ledger.

But we transcribe to the Individual Accounts as usual when desired.

We will give a few illustrations of entries in the Insurance Terminated Journal:

Suppose a Whole Life Policy issued at age 30 for $10,000, Ordinary Life Plan, terminates by death after ten annual Premiums have been paid; and suppose that $10,000 is paid in full settlement.

We first get the Policy Ledger Card and then turn to the Insurance Terminated Journal general division, "Whole Life," and to the subdivision "Terminated by Death" and fill in the Descriptive columns. The Policy year will be 10 and the fraction 1, showing that the annual Premium has been paid in full.

On the debit side we put Death losses $10,000 and on the credit side under Bank $10,000.

$10,000	Death Losses.	Dr.
To $10,000	Check on Bank.	

After making the entry in the Insurance Terminated Journal we transcribe the Termination to the Individual Policy Ledger Card, giving the date and cause of death and the settlement.

We file the Policy Ledger Card in the Terminated Insurance for the year.

Again, suppose a Twenty-Pay Life at age 40 for $10,000. Suppose this terminates by death the Twelfth Policy Year, after the third quarterly Premium payment has been made.

Suppose the quarterly Premium is $100.

We get the Policy Ledger Card and turn to the Insurance Terminated Journal, "Whole Life" Insurance, Terminated by Death, the same as before, and fill in the Descriptions. Under Policy Year we put 12, and under Fractions ¾, showing that only ¾ of the annual Premium

is paid, and that the remaining ¼ Deferred Premium remaining as a debt due the Company. Under debits we put Death loss $10,000, and under credits Debts cancelled, we put $100 for the Deferred Premium, and check $9,900 to balance:

$10,000		Death losses.	Dr.
	To $9,900	Check on Bank.	
	100	Deferred Premium Cancelled.	

We transcribe the Termination upon the Policy Ledger Card, giving the date and cause of Death and settlement.

We file the Policy Ledger Card in the Insurance Terminated Cabinet for the year.

Again, suppose a Twenty-Year Endowment for $10,000 at age 55, matures at the end of twenty years, during the life of the Insured, and suppose a Policy loan of $3,000 matures at the same time:

We turn to the Insurance Terminated Journal, division "Endowments" and to the sub-division "Maturity" and fill in the Descriptions and enter upon the debit side matured Endowments $10,000 and enter upon the credit side under Policy loans $3,000, and under Bank $7,000 check for the balance:

$10,000		Matured Endowment.	Dr.
	To $7,000	Check on Bank.	
	3,000	Policy loans cancelled.	

Again, suppose a Term Insurance of $5,000 expires at the end of five years, during the life of the insured:

We turn to the Insurance Terminated Journal Term Insurance, under the sub-division "Expiration," and enter the details in the Description columns. The debit and credit columns will remain empty, as there is nothing paid to the Insured.

The collateral transcribing will be as usual in the above examples.

Again, suppose a Ten-Pay Life Policy for $1,000, 3 per cent Reserve, at age 20, surrendered at the end of the fifth year, the Reserve being $175.30.

Suppose the Surrender value $160 is used to purchase Paid-Up Insurance and suppose a Dividend $10 then due is paid in Cash.

As usual we first get the Policy Ledger card to obtain the proper information for the entries.

There are several ways in which this entry may be made.

We may split the transaction up into parts and enter the Dividend on the Dividend Journal, the Premium on the Premium Journal and the Termination on the Insurance Terminated Journal, as separate and independent transactions.

Or, we may enter the whole transaction on any one of the Journals, whichever we please.

But the best way is to use both the Insurance Terminated Journal and the Premium Journal.

Thus, we turn to the Insurance Terminated Journal division Whole Life, sub-division Surrendered and enter as follows:

$160		Surrender Value.	
10		Dividend.	Dr.
	To $ 10	Bank (paid dividend).	
	160	Surrender value transferred to Premium Journal.	

The surrender value $160 on the credit side cancels the surrender value of $160 on the debit side and shows that the entry has been transferred to the Premium Journal. Otherwise, we may make the entries in red ink as memoranda, or we may even leave these columns blank, entering the transaction in the Premium Journal alone, but in all cases the termination should be entered in the descriptive columns of the Insurance Terminated Journal, no matter whether the entry is transferred to the Premium Journal or not.

On the Premium Journal under the Division changed—paid-up Insurance—the entry will be:

$160		Surrender value.	Dr.
	To $160	Premium.	

We may make a separate policy card for the paid-up insurance, or we may use the original card with the facts noted thereon. In either event we transcribe the premium payment to the proper card.

Suppose an Ordinary Life Policy at age 45 for $1,000 terminates by surrender at the end of the seventh year, with a Reserve of $145.59, the surrender value being $130.

Suppose this surrender value is used to purchase extended insurance.

We obtain the Policy Ledger Card as usual and turn in the Insurance Terminated Journal to the division Whole Life, terminated by

surrender, and from the Policy Ledger Card fill out the descriptions in the Insurance Terminated Journal. The entry will then be:

$130	Surrender value,	Dr.
To $130	Surrender value used to purchase extended insurance.	

If preferred we may enter the $130 in red ink on the debit and credit side, or may leave the columns blank after having filled in the descriptive column.

The termination of the insurance will then be transcribed to the Policy Ledger card.

We next turn to the Premium Journal under the division Changed, extended insurance, and make the entry:

$130	Surrender value.	Dr.
To $130	Premium.	

We may keep a separate Policy Ledger Card of this extended insurance or we may enter the extension on the original card to represent the extended term insurance.

Again, suppose a Twenty-Pay Life at age 45 for $1,000 terminates the fifteenth year, the Reserve being $500, surrender value $450.

Suppose a lien under a general contract exists for $100 and a policy loan evidenced by a note for $100, leaving $250 available balance. Suppose this $250 is used to purchase paid-up insurance.

We obtain the Policy Ledger Card, turn to the Insurance Terminated Journal, Whole Life surrendered, and after filling in the descriptive columns make the entry as follows:

$450	Surrender value.	Dr.
To $100	Policy liens.	
100	Policy loans.	
250	Surrender values used to pay premiums for paid-up insurance.	

If preferred we may enter the $250 surrender value credit in red ink and also on the debit side $250 in red ink and $200 in black ink, the red ink to represent memoranda and not book entries, or we may leave the $250 blank entirely and put $200 debit and $200 credit.

We transcribe to the Policy Ledger Card as usual.

We turn to the Premium Journal under the head of Changed, paid-up insurance, and enter:

$250	Surrender values.	Dr.
To $250	Premium,	

and collaterally transcribe as usual to the Policy Ledger Card, either a new card or we retain the old card for the purpose.

Again, suppose a Fifteen-Pay Life Policy at age 40 lapses at the end of the tenth policy year with a Reserve of $440, and surrender value of $400, and suppose extended insurance is granted.

We obtain the Policy Ledger card as usual and turn to the Insurance Terminated Journal, Whole Life Lapsed and after filling in the descriptive columns make the entry:

$400	Surrender values.	Dr.
To $400	Surrender values used to purchase extended insuance.	

We may put the $400 debit and $400 credit in red ink if desired as before, or leave blank after filling in the description.

We transcribe the entry to the Policy Ledger card.

On the Premium Journal Changed, extended insurance, we enter:

$400	Surrender value.	Dr.
To $400	Premium.	

We either make out a new card extended insurance and enter on the new card or retain the old card for the purpose.

Suppose now that within the time allowed for revival and while the extended insurance is in force, the policyholder asks a revival and produces satisfactory evidence of good health.

The extended term insurance which is now in existence must be cancelled on the Insurance Terminated Journal and the original policy revived.

As usual we obtain the card for the extended insurance, either the new card made for that purpose or the old card to which the extended insurance attaches, and turn to the Insurance Terminated Journal Term Insurance Surrendered and after filling in the descriptive columns and after ascertaining that, say $50, has already been consumed in carrying

the Extended Term Insurance to date, leaving $350 as a balance surrender value, our entry will be:

$350	Surrender value.	Dr.
To $350	Surrender value used to revive old insurance.	

As before, we may enter the $350, both debit and credit, in red ink or leave these columns blank after filling in the descriptive columns.

We transcribe to the Policy Ledger Card as usual.

We turn to the Premium Journal under the head of Revived Insurance and assuming that the back premiums to be paid in cash amount to $100 in addition to the $350 surrender value for the Extended Term Insurance, our entry will be:

$100	Cash.	
350	Surrender value.	Dr.
To $450	Premium.	

We transcribe to the Ledger Card as usual.

In the column headed Reserves in the Insurance Terminated Journal we must put the Reserves upon each Policy Terminated, and in the column headed Surrender Values we put the entire Surrender Value provided in the Policy without regard to any of the liens or loans or debts due by the Policyholder to the Company.

The aggregate footing of the Reserve column will show the aggregate Reserves.

The aggregate footing of the Surrender columns will show the Surrender Values allowed. The difference between these shows the profit realized by the Company from Lapses and Surrender.

The Insurance Terminated Cards, after the termination Insurance entries have been made on all the books, will be placed aside in the Insurance Terminated Card cabinet for the year, and will there remain to the end of the year.

At the end of the year all the Terminated Cards will be taken from the Terminated cabinet and will be classified.

First. According to kind of Insurance, and second, according to ages at entry.

These terminations will then be entered in this order on the Insurance Classified Books, which we will explain later.

THE DIVIDEND JOURNAL.

The Dividend Journal also represents payments to Policyholders. We give here a convenient form for this Journal.

As in all the Journals the entries must be in regular Double Entry form.

Where the Dividend is used in reduction of Premiums the entire entry should be made on the Premium Journal, as we consider the Premium Journal the controlling Journal. However, columns are provided to enter Dividends in reduction of Premiums on the Dividend Journal, if desired.

If, however, the Dividend used as a Premium is entered upon the Dividend Journal it should be transferred to the Premium Journal so as to keep the Premium Journal complete. The facts would thus be shown on both the Dividend Journal and the Premium Journal. but the debit and credit on the Dividend Journal being the same would cancel each other. Otherwise they may be entered in red ink in the Dividend Journal as memoranda only.

All cash Dividends will naturally come on the Dividend Journal. Thus:

$50	Dividends.	Dr.
To $50	Cash,	

would go immediately upon the Dividend Journal and would be collaterally transcribed to the Individual Policy Ledger Card.

DIVIDEND JOURNAL.

DESCRIPTIONS.														DEBITS.				CREDITS.					
																					Used as Premiums.		
Date of Policy.	Number.	Kind.	Premium.	Issued.	Original Amount.	Additions.	Deductions.	Amount of Policy.	Age at Issue.	Policy Year.	Fraction.	Dividend Rate.	Amount of Dividend.	Date.	Description.	Sundries.	Dividends.	Descriptions.	Sundries	Bank.	Reduction of Premiums.	Paid Up.	Annuities.

Again, a $25 Dividend paid in reduction of Premiums had best go directly upon the Premium Journal, but we may enter it on the Dividend Journal as follows (in red ink, as a memorandum only, if preferred):

$25 Dividend. Dr.
To $25 Dividend, used in reduction of Premiums.

The debit and credit of Dividends on the Dividend Journal cancel each other, and we then make the regular entry upon the Premium Journal:

$25 Dividend. Dr.
To $25 Premium.

ANNUITY AND SUPPLEMENTARY CONTRACT JOURNAL.

This Journal also represents payments to Policyholders. We here give the form of the Annuity and Supplementary Contract Journal.

It is intended to cover payments to Policyholders on Annuities and on contracts that have matured into claims, but which are being paid annually or being discharged by Supplementary Contracts.

The entries upon this Journal, as upon all the other Journals, are in regular Double Entry form.

ANNUITY AND SUPPLEMENTARY CONTRACT JOURNAL.

Kind of Policy

DESCRIPTIONS.						DEBITS.				CREDITS.		
Date.	Policy Number.	Kind of Policy.	Insured.	Address.	Amount.	Date.	Descriptions.	Sundries.		Descriptions.	Bank.	Sundries.

Thus, suppose an Annuity Certain for twenty years is being paid in discharge of a Death Loss, the yearly annual payment on the Annuity being $600:

The entry for a single payment will be:

$600 Annuity Certain. Dr.
To $600 Cash.

Again, suppose a widow is drawing an Annuity of $1,000 per year during the balance of her life, in payment of a Death Loss upon her husband's life:

The entry for a single payment will be:

$1,000 Life Annuity, contingent. Dr.
To $1,000 Cash.

The collateral transcribing to the Individual Accounts will be as usual.

THE GENERAL LEDGER.

The General Ledger may be of the form in common use. We prefer the Loose Leaf Ledger, clearly indexed by tabs.

There is nothing peculiar in a Life Insurance Ledger that distinguishes it necessarily from other Ledgers.

We note, however, that the aggregate results on the General Ledger are split into itemized particulars on the special Ledgers, such as the Agent's Special Ledger, etc.

There should also be a special Ledger for real estate and real estate loans and long-time collateral loans, covering separate divisions for fire insurance policies, interest and rent payments, repairs, etc.

As the forms of these have nothing peculiar to do with Life Insurance we refer the reader to real estate companies, to mortgage loans companies and to Banks for the best forms of these books. They are all very simple. The ingenuity of the reader can readily devise forms of his own.

BANK AND CASH ACCOUNT.

We give here the form for combined Bank and Cash Account, bringing together in one place all Bank and Cash entries for each day. The classification follows the classifications of the Journals. On the credit side will be found the two great sources of Income, Premiums and In-

terest. On the debit side will be found the two great sources of Disbursements, Expenses and Payments to Policyholders.

The Sundries columns both debit and credit are intended to cover special entries that do not fall satisfactorily into any of the special columns named.

The Bank and Cash Account is an Auxiliary Book that is intended merely as a memorandum.

The balances, however, should correspond with the aggregate Cash and Bank balance on the General Ledger.

By this Bank and Cash Account the Bank and Cash should be daily balanced.

BANK AND CASH ACCOUNT.

DEBITS.								CREDITS.						
Date.	Descriptions.	Sundries.	Cash.	Bank.	Expenses.	Payments to Policyholders.	Investments.	Descriptions.	Sundries.	Cash.	Bank.	Premiums.	Interest and Rents.	Investments.

AGENT'S PERSONAL LEDGER.

If desired an Agent's Personal Individual Ledger may be kept, with two debit columns and two credit columns, one for Personal Account and one for the Policy Account, besides the usual columns for the date and the itemized particulars or descriptions.

In the Personal Account we will put the debits and credits on the Purely Personal Account of the Agent.

In the Policy Account we will put the debits and credits, which, though now personal to the Agent, have their origin in the Policy Account.

The Agent's Personal Ledger will represent the itemized particulars, of which the aggregates belong to the General Ledger under the general head "Agent's Balances."

AGENT'S PERSONAL LEDGER.

DEBITS.				NAME OF AGENT				CREDITS.
Date.	Description.	Personal Acct.	Policy Acct.	Date.	Description.	Personal Acct.	Policy Acct.

RECORD OF CLASSIFIED INSURANCE.

We give here the form of the Record of Classified Insurance.

All the Insurance that is written during the year will be classified by cards; first, according to the kind of Policy, and second, according to the age at issue.

This is best understood by an illustration.

For the year 1900 we put into one cabinet cards representing all the Policies written during the year on the Ordinary Life Plan.

We then assort these cards by ages.

We thus have in one cabinet all the Policies on the Ordinary Life Plan issued in 1900, arranged by ages, 21, 22, 23, etc.

On the record of Classified Insurance we record these in order, giving first, the Number of the Policy, beginning at the lower age, say age 20, and continuing through all the ages, 21, 22, 23, etc., in order, and write the amounts of Insurance in one column, which column we must designate at the top, as calendar year 1900—Policy year one.

This record thus gives us a complete exhibit, arranged in order of ages, of all the Ordinary Life business written in the year 1900.

At the end of the year 1900 we ascertain the Policies that have terminated by Lapse, Surrender or Death or otherwise during the year.

This is ascertained from the cabinet containing the Policy Ledger Terminated Cards.

We write opposite each Termination the date and manner of Termination and at the beginning of the next year, 1901, which will be the Second Policy year, we bring forward all existing Policies into the next column, 1901; which we will designate as Calendar year 1901, Policy year two.

At the end of 1901, which is the Second Policy year, we in like manner ascertain the Terminations during the year from the Policy Ledger Cards, in the Terminated cabinet for the year, and we bring forward the existing in the next column, which we designate as Calendar year 1902, Policy year three. We keep this up year by year until all the Ordinary Life Policies issued in 1900 have Terminated.

RECORD OF CLASSIFIED INSURANCE.

Kind of Policy												
Number.	Age.	Cal. Yr.... Pol. Yr....	Cal. Yr.... Pol. Yr....	Cal. Yr.... Pol. Yr....	Cal. Yr.... Pol. Yr....	Cal. Yr.... Pol. Yr....	Cal. Yr.... Pol. Yr....	Cal. Yr.... Pol. Yr....	Cal. Yr.... Pol. Yr....	Cal. Yr.... Pol. Yr....	Cal. Yr.... Pol. Yr....

Similarly for the Ordinary Life Policies for which 1901 is the first Policy year.

And, similarly for the Ordinary Life Policies, for which 1902 is the first policy year, and so on.

Not only for the Ordinary Life, but we do exactly the same thing for the Twenty-Pay Life, for the Fifteen-Pay Life, for the Ten-Pay Life and for all Endowments and for all Term Policies and for all other Policies.

If the Policy is increased or decreased in amount, still remaining of the same class, such as a Premium Addition Policy, we may leave two lines for each Policy running the original amount along one horizontal line and the increase or decrease in red ink, if preferred, along the adjoining horizontal line.

If the increase is a Paid-Up Dividend Addition this Paid-Up Addition will belong to a different class of Insurance from the original, unless the original, too, is now Paid-Up. The Paid-Up Dividend Additions must, therefore, in general go into a different class and on a different page.

The Record of Classified Insurance is used to prepare the classifications for Reserves and Mortality and Lapse rates, and for other purposes.

These classifications should be kept as permanent records.

A convenient, perhaps the best, way to enter terminations on the Classified Insurance book is as follows:

Arrange in numerical order the Terminated Policy Ledger Cards for the year. Begin at the beginning of the Insurance Terminated Journal and see that every entry on the Insurance Terminated Journal is represented by a card. Classify the Terminated Cards in the same way that the Insurance Classified Book is classified. Enter the Terminations on the Insurance Classified Book.

This may be done monthly, if desired, instead of yearly.

RESERVES AND DIVIDENDS.

We give here the form to be used for the Reserve and Dividend Calculations.

With regard to the Reserves, we need only those Policies that were in existence at the end of the year.

With regard to the Dividends we need only those Policies that were in force at the end of the year, provided the Policy must be in force in order to draw its Dividend.

If the Policy draws its Dividend whether in force or not, we need for Dividend calculations all the Policies in force at the beginning of the year.

RESERVES AND DIVIDENDS.

Kind of Policy					Reserve Basis				
						Reserves.		Dividends.	
Year Issued.	Year Calculated.	Policy Year.	Age at Issue.	Number.	Amount of Insurance in Force.	Mean Rate.	Amount.	Rate.	Amount.

For the purpose of Reserves and Dividends we take the facts from the record of Classified Insurance, but we consider as one Policy all Policies of the same kind that were written in the same calendar year and at the same age.

MORTALITY AND LAPSE RATES.

We give here the form for the calculation of the Mortality and Lapse rates. The facts will be taken from the Record of Classified Insurance, but for the year of calculation we will need the amounts of Insurance in force at the beginning of the year.

We will also need the Lapses, Surrenders and Deaths occurring during the year.

We will consider as one Policy all Policies of the same kind that were issued in the same Calendar year, and at the same age.

This table will show the rate of Mortality for each kind of Policy and Policy year; first, as expected from the Table; second, as expected from the Table after allowing for Medical Selection; and, third, as actually experienced by the Company.

MORTALITY AND LAPSE RATES.

Kind of Policy.						Reserve Basis.								
						Terminated.						Tabular.		Medical.
Year Issued.	Year Calculated.	Policy Year.	Age at Issue.	Number.	Amount of Insurance.	By Death.	By Lapse and Sur.	Total Terminated.	Mean Exposures During Year.	Reserve Rates.	Terminal Reserves.	At Risk.	Rate.	Expected Loss.	Rate.	Expected Loss.

COMPLETING THE RECORDS AND BALANCING THE BOOKS.

In Life Insurance, as in all other businesses, the opening entry is made by putting the assets on the left, in the debit column, and the liabilities, including stock and surplus, on the right in the credit column.

At the end of every year the books should be balanced and into the new year there should be brought forward nothing except the assets and liabilities, leaving Profit and Loss, etc., behind, in the same way as if the Company were entering upon a new business the new year.

After a Life Insurance Company begins business there will arise certain classes of assets and liabilities which appertain to Life Insurance only.

Among the assets will appear Policy Loans, Policy Liens, Premium Notes, Agent's Balances, etc.

And among the liabilities will appear Legal Reserves, Surplus to Policyholders, etc.

During the year the Company will collect Premiums and Interest. These constitute the two sources of income. And as these sources of income are paid to the Company the entries will be:

Cash
  To Premiums.

and

Cash
  To Interest.

Premium as used above means premium obligation receivable.

As the business progresses during the year the Company will pay out expenses and will make payments to Policyholders in conformity to the contracts and as part of the regular course of business. These entries will be of the form:

Expenses of Premium Collection.
  To Cash.
Expenses of General Administration.
  To Cash.
Expenses of handling the funds.
  To Cash

and the payments to Policyholders will be of the form:

Death losses.
  To Cash.

Matured Endowments.
To Cash.
Annuity payments.
To Cash.
Surrender Values.
To Cash.
Dividends.
To Cash.

Of course, instead of cash, anything else may appear in the above entries.

Premiums and interest are paid to the Company under a trust to defray expenses and to pay Policyholders. If we were to embody this in a book entry it would be of the form:

Premiums.
Interest.
To Expenses.
To Payments to Policyholders.

This entry would to a large extent balance the reverse entries just made.

But this latter entry need not in fact be made. We may accomplish the result in a simpler manner as follows:

The following accounts at the end of the year must be balanced into profit and loss; to-wit: Premiums, Interest, Expense Accounts, Death Losses, Matured Endowments, Annuity Payments, Surrender Values and Dividends.

At the end of the year the real estates should be credited with the balance on hand, either at the old book values or at new values if desired by the Company, and the account balanced into profit and loss, the balance of the Real Estate being carried forward into the next year.

Real estate mortgages will be balanced into the balance account and the balance carried forward.

Similarly, collateral loans, bills receivable, personal accounts, cash and other similar assets will be carried forward as balances.

If bonds and stocks are listed at fluctuating market values the new market value at the end of the year may be carried forward as balances and the accounts balanced into profit and loss.

Bills payable will go forward, of course, for their full value as liabilities.

The old Contingency Reserve will be balanced into profit and loss by an entry of the form:

Old Contingency Reserve. Dr.
To Profit and Loss.

and the new Contingency Reserve, the amount of which will be calculated by the Actuary, will be brought into existence on the books by an entry of the form:

Profit and Loss.
To New Contingency Reserve.

Similarly, the old Legal Reserve will be balanced into Profit and Loss by an entry of the form:

Old Legal Reserve.
To Profit and Loss,

and the new Legal Reserve, the amount of which will be calculated by the Actuary, will be brought into existence on the books by an entry of the form:

Profit and Loss.
To New Legal Reserve.

Thus, the new Contingency Reserve and the new Legal Reserve come forward as liabilities.

Stock dividends and other payments due to Stockholders are properly chargeable as expenses of General Administration and thus come forward in effect as liabilities against the Company and in favor of the Stockholders.

The Contingency Reserve entries will have consumed as much of the profit or savings as is necessary for a Contingency Reserve and the entire remaining profit and loss is then Divisible Surplus to be paid or credited to the Policyholders.

We thus finally balance profit and loss into divisible surplus which is brought forward as a liability.

We open the new books, therefore, for the new year in exactly the same way as we open the books at the beginning of the business.

The assets on hand at the beginning of the year are charged to the liabilities on hand at the beginning of the year and all accounts that do not represent assets or liabilities are left behind on the old books.

CHAPTER III.

CONCLUSIONS FROM THE FACTS.

The facts having been ascertained, classified and recorded the next thing is to draw conclusions. These conclusions consist of mathematical calculations and conclusions of law.

Among the most important mathematical calculations are the Legal Reserve, the Contingency Reserve, the Net Divisible Surplus and those fundamental ratios which constitute the basis of dividend calculations.

The conclusions of law consist in determining the rights and liabilities of the parties upon the facts thus disclosed.

LEGAL RESERVES.

When a Life Insurance Company signs a Policy the Company becomes liable. But what this liability at the present time is in dollars and cents on this particular policy, nobody can tell; for nobody can tell how long the Policyholder will live, nor how soon he may die, nor when the Company will have to pay the claim.

Thus in Life Insurance Bookkeeping, as we have seen, this Policy is not entered at once upon the books as a bill payable, but the liability is apparently left off the records until the death actually occurs.

But the liability is only apparently left off the records. The Liability really appears on the records in another form disguised in the shape of the Legal Reserve liability.

The Legal Reserve laws artificially convert a future contingent unknown liability into a present certain known artificial liability.

The Legal Reserve liability upon any policy at any time is artificially defined by law to be the net single premium that will be required to purchase the contract at the present age of the insured, less the present value of future net premiums, by the interest rate and mortality table fixed by the law.

It will be thus seen that by conventional rules more or less artificial an artificial value is put upon the Policy; to-wit: the single premium at the interest rate and mortality table fixed by the law, and the Company is charged this amount, but the Company is at the same time credited

all future net premiums; the value of which is determined in the same artificial manner.

In speaking of the Legal Reserve laws as artificial and conventional, no disrespect is meant. In the absence of an artificial or conventional rule there is no way to convert a future contingent unknown liability into a present certain known liability.

But in Accounting it is of the utmost importance that the true artificial and conventional nature of the Legal Reserve method of Valuation should be fully admitted and appreciated. Otherwise Accounting will be more or less defective.

The object of artificial conventional rules should be to fit the facts and arrive at truth in the simplest, easiest way. If artificial conventional rules do not fit the facts and do not yield the truth they are of little value.

Unless the true nature of the Legal Reserve laws are appreciated and unless they are applied in the right way and qualified in the right way they may produce a great deal of harm and perhaps more harm than good. The Legal Reserve laws require that each Company shall have on hand at all times in Admitted Assets the full amount of the Legal Reserve and if the Company fails to do so the Company is declared by law technically artificially insolvent, whether the Company is really insolvent or not.

The ability to comply with the Legal Reserve law is no true test of solvency. A Company may be thoroughly solvent and yet not able to comply with the Legal Reserve Law. On the contrary, an insolvent Company may be able to comply with the Legal Reserve Law.

One Company may have a low expense rate, a low mortality rate and a high interest rate, and may thus be earning large Dividends so that if let alone it may be amply able to carry out all its contracts with its Policyholders and pay good Dividends, besides. Yet at the present time it may be short a few Dollars on its Legal Reserves. If so, it will, by the Legal Reserve Laws, be put at once out of business.

Another Company may have a high expense rate, a high mortality rate and a low interest rate, and may thus be running at a heavy loss. Yet it may have on hand the Legal Reserve at the present time. Such a Company, under the Legal Reserve Laws, will be allowed to continue business though its insolvency in the near future is inevitable.

Our object is to develop what are the true tests of a Company's solvency and insolvency.

THE CONTINGENCY RESERVE.

The object of the Contingency Reserve is to provide against unlooked for fluctuations in the market values of the assets and in the interest rate and in the mortality experience of the Company and against other unlooked for contingencies.

The Contingency Reserve is a Safety Fund or Margin. The object is to keep the assets in excess of the Legal Reserve and other liabilities. By law the Legal Reserve is made the Dead Line, which, if the Company touches it becomes technically or artificially insolvent whether it is really insolvent or not.

While the Contingency Reserve is of great importance in all businesses, it is, therefore, on account of the technical artificial Legal Reserve laws of peculiar importance in Life Insurance. The Contingency Reserve ought to be thoroughly defined and a determinate standard of Safety established.

PROPORTIONAL TO FLUCTUATIONS.

The object of the Contingency Reserve being to provide against fluctuations the Contingency Reserve ought to be proportional to the mean fluctuations. This is self evident.

The mean fluctuation in the market value of the assets must be found by actual observation.

At the time an asset is purchased the book value should be made to conform as accurately as possible with the true value. Each year the value at the end of the year should be compared with the book value and the mean fluctuation noted. At periods, if desired, the book values may be changed to suit actual values. The mean yearly fluctuations should be put in the Company's Statements.

The fluctuation rates in each class of security for different years should be squared and the mean of these squares found. The square root of this mean may be called the mean fluctuation in that particular character of assets.

Likewise, the mean fluctuation rate in the rate of interest should be noted each year and the per cent of variation from the mean found.

The fluctuation rate in the mortality experience of the Company is apparently, though not really, discovered in quite a different way. It may be shown by mathematical demonstration that the mean fluctuation rate in the mortality losses is approximately equal to the average amount at risk per policy (the face value of the policy less the Reserve), multiplied by one-tenth the square root of the number of policies in force.

Thus, if (I) equals the average amount of Insurance per Policy and (R) the average amount of Reserve per Policy and (N) the number of policies in force, the mean fluctuation rate per year in the Mortality Experience of the Company will be:

$$(I—R)\ \tfrac{1}{10}\sqrt{N}$$

The Contingency Reserve should, therefore, be made up as follows:

First. Contingency Reserve on account of assets.

C times the assets × the mean fluctuation rate of assets.

Second. Contingency Reserve account of Interest.

C times the assets × interest rate × mean fluctuation per cent in the interest rate.

Third. Contingency Reserve account of mortality.

$$C \text{ times } (I—R)\ \tfrac{1}{10}\sqrt{N}$$

The sum of the above three will give the Contingency Reserve with sufficient accuracy for all practical purposes.

Here C is the constant which is to fix the standard.

THE STANDARD OF SAFETY.

The standard of Safety becomes determined as soon as we determine C in the foregoing formula for the Contingency Reserve.

What do we mean by Safety?

What is the business idea of Safety?

What is the common sense idea of Safety?

When we say a Life Insurance Company is safe we mean that its Contingency Reserve is so large that there is no reasonable probability of its being consumed by fluctuations in a few years and before the Company has an opportunity to replenish its Contingency Reserve. That is to say, that the Company is in no danger of touching the Dead Line of the Legal Reserve.

Involved in this conception of Safety are three ideas:

First. The probability or amount of chance.

Second. That the Contingency Reserve will be consumed.

Third. In a given time.

The above is not only the common-sense and business meaning of Safety, but it is the strictly scientific meaning and we cannot conceive of Safety involving any more or any less conditions.

THE CONTINGENCY RESERVE TABLE.

We give below a table which may be called the Contingency Reserve table:

THE CONTINGENCY RESERVE TABLE.

Probability that the Contingency Reserve will be consumed.

No. of Years	1 Chance in 4	1 Chance in 10	1 Chance in 20	1 Chance in 200	1 Chance in 2000
1	.672	1.28	1.64	2.58	3.96
5	1.51	2.88	3.70	5.80	8.90
10	2.12	4.05	5.20	8.14	12.50
20	3.00	5.73	7.38	11.54	17.73

From the above Contingency Reserve table we may find the standard of Safety corresponding to any Contingency Reserve, or the Contingency Reserve corresponding to any standard of Safety.

At the top of the table is found the probability or number of chances. In the column to the extreme left is found the time or the number of years. In the body of the table are found the numbers that must be multiplied by the mean fluctuation in order to obtain the Contingency Reserve corresponding to the standard.

Thus, suppose the standard is, that there shall be less than one chance in twenty that the Contingency Reserve shall be consumed by fluctuations in ten years. At the top of the table we find one chance in 20. In the column to the extreme left we find 10 years. In the body of the table we find the corresponding numbers 5.20. Thus, 5.20 times the mean fluctuation will give such a Contingency Reserve that there is less than one chance in 20 that the Contingency Reserve will be consumed by fluctuations in 10 years.

If we multiply the mean fluctuation by 2.88 we see from the table that we will obtain a Contingency Reserve such that there is less than one chance in 10 that the Contingency Reserve will be consumed by fluctuations in 5 years.

From the Contingency Reserve table we take the following:

Probability	Number of Years	Contingency Reserve
1 in 10	20	5.73 fluctuations
1 in 20	10	5.20 fluctuations
1 in 200	5	5.80 fluctuations

Thus, the above are different ways of expressing practically the same standard of Safety, for each equals the yearly fluctuations multiplied by about five and a half.

If the standard is lowered a little we see from the table that the danger of insolvency very rapidly increases. If the standard is raised a little the safety is greatly increased.

The Contingency Reserve should cover the maximum fluctuation that can reasonably be expected to occur.

Panics come at intervals of approximately 10 years. The periods over which mean fluctuations are calculated should extend over 10 or 20 years, so as to include panics and to cover the greatest slumps that are likely to occur in market values.

Taking panics into account, 5 times the mean yearly fluctuation would seem to be about the correct Contingency Reserve. 7 times the mean yearly fluctuation we see from the table is almost too much and 3 times not quite enough.

We may look upon the periodic panics that occur about every 10 years as part of the known facts outside the Contingency Reserve. Market values begin as a rule soon after a panic gradually to rise, and the general trend is upward for about 10 years when there is another slump. During continual rise of values an extra amount of Contingency Reserve should be set aside.

CALCULATION OF THE CONTINGENCY RESERVE.

By using the foregoing Contingency Reserve table the calculation of the Contingency Reserve becomes simply a question of multiplication. We will apply the method to a few examples.

Suppose we take as a standard that the Contingency Reserve shall be 5 times the mean yearly fluctuation. We see from the table that this standard may be expressed in a good many different forms. It is nearly equivalent to any one of the three following: Either one chance in 10 that the Contingency Reserve will be consumed in 20 years, or one chance in 20 that the Contingency Reserve will be consumed in 10 years, or one chance in 200 that the Contingency Reserve will be consumed in 5 years.

Upon this standard what should be the Contingency Reserve of a Company subject to the following conditions:

Insurance in force	$2,000,000.000
Number of policies	1,000,000
Average amount of policy	2,000
Reserve	600,000,000
Average reserve per policy	600
Amount at risk per policy	1,400
Average square root of mean square fluctuation per year in market values of assets	.009
Interest rate	.05
Average yearly fluctuation in per cent of interest rate	.03

The contingency reserve should be:

Account of Assets—	
$5\times600.000\times.009=$	27,000,000
Account of Interest—	
$5\times600.000\times.05\times.03=$	4,500,000
Account of Mortality—	
$5\times1.400\times\frac{1}{10}\times\sqrt{1,000.000}=$	700,000
Total Contingency Reserve,	32,200,000

In comparison with the above large old Company consider a young small Company as follows:

Insurance in force	$10,000,000
Number of policies	5,000
Amount per policy	2,000
Reserve	400,000
Reserve per policy	80

Amount at risk per policy	1,920
Average fluctuation per year in market values of assets	.009
Interest rate	.05
Average yearly fluctuation in per cent of interest rate	.03

The contingency reserve should be:

Account of assets—	
$5\times400.000\times.009=$	18.000
Account of interest—	
$5\times400.000\times.05\times.03=$	3.000
Account of mortality—	
$1,920\times5\times\frac{1}{10}\times\sqrt{5.000}=$	67.800
Total Contingency Reserve,	88.000

We note a marked contrast between these two Companies.

In the large old Company nearly all the fluctuations are in the assets. In the small young Company nearly all the fluctuations are in its mortality experience.

It is thus seen that the rule sometimes adopted of determining the Contingency Reserve as a mere percentage of the assets is very crude and unfair and is, in fact, no test of Safety.

In fact, as the fluctuation in mortality varies as the product of the amount at risk into the square root of the number of policies in force the relative fluctuation diminishes very rapidly as the Company grows larger, or if the size of the policies is diminished and their number increased the aggregate amount of insurance remaining the same.

The above principles also control the question of the maximum risk on a single life.

Suppose a Company desires to write a few extra large policies. The question is how much extra Contingency Reserve will these few extra large policies require?

The answer is given by the following formulae:

Let (A) represent the average amount at risk (insurance less reserve), and (N) the number of policies in force before the extra large policies were written. Let (A_1) equal the amount at risk on the extra large new policies and (N_1) their number.

The old mean yearly fluctuation is given by the formula:

$$\tfrac{1}{10}\sqrt{A^2 N}$$

and the new mean yearly fluctuation is given by the formula:

$$\tfrac{1}{10}\sqrt{A^2 N + A_1^2 N_1}$$

Thus, suppose an Industrial Insurance Company has on its books 50,000 policies of $100 each, and it wishes to write 100 extra policies of $50,000 each. It has already 5,000,000 of very small policies on its books and wishes to write 5,000,000 very large policies. The fluctuations before and after will be as follows:

Old fluctuation $\tfrac{1}{10}\sqrt{(100)^2\,(50.000)}=$ 2.236

New fluctuation $\tfrac{1}{10}\sqrt{(100)^2\,(50.000)+(50,000)^2(100)}=$ 22.605

Thus, if the Contingency Reserve is 5 times the fluctuation the Contingency Reserve before writing the new business will be:

Old Contingency Reserve..... 11.180

and after will be:

New Contingency Reserve.....113.025

From the above formula it is very easy for a Company to tell whether, with its present Contingency Reserve, it can afford to write proposed new large risks.

The probable fluctuation is such that there are as many fluctuations above as below. That is to say, the chances are even that the real fluctuation will be above or below the probable fluctuation.

The probable fluctuation is given in the first column of probabilities in the Contingency Reserve table for one chance in four that the Contingency Reserve will be consumed by adverse fluctuations is one chance in two that the fluctuations plus or minus shall equal the Contingency Reserve.

Suppose a Company has 10,000 policies in force. On an average the expected deaths will be about one per cent., or one hundred deaths.

It is an even chance that the fluctuations in one year will exceed or fall short of one hundred by

$.672\ \tfrac{1}{10}\sqrt{10.000}=$ 6.72

Thus, it is an even chance that the deaths will fall betweeen 93 and 106 in one year.

The expected deaths in 10 years if the Company is kept at the same size will be 10 times 100, or 1,000. It is an even chance that in the 10 years the actual deaths shall exceed or fall short of the expected by:

(2.12) $\tfrac{1}{10}\sqrt{10.000}=$ 21.10

Thus, it is an even chance that in 10 years the deaths will fall between 978 and 1,022.

Innumerable practical problems of a nature similar to the above may easily be solved by the foregoing tables and equations.

NATURE OF THE CONTINGENCY RESERVE.

The Contingency Reserve is a General Fund. It is designed to maintain the integrity of the Company as a whole. As a General Fund it is in marked contrast with Special Funds which are limited to particular uses and clothed with Special Trusts.

The Legal Reserve is a Special Fund. It cannot be used for general purposes.

Deferred Dividend accumulations are Special Funds. They belong to deferred dividend Policyholders and should not be used for any other purposes.

All profits accumulated by the Company are Special Funds and should be at once assigned to their appropriate owners and not retained by the Company for general purposes.

The Contingency Reserve is the only General Fund. From the Contingency Reserve the Company may make a temporary loan to any suffering cause in the Company to cover unlooked for contingencies, the money thus borrowed from the Contingency Reserve to be repaid at convenience by the cause to which the loan was made.

HOW THE CONTINGENCY RESERVE SHOULD BE CREATED, USED AND RE-DISTRIBUTED.

The Contingency Reserve should be considered a general fund contributed by all the Policyholders for the maintenance of the integrity of the Company as a whole as against any unlooked for contingency.

At the beginning of the year the Contingency Reserve should, therefore, be brought into existence and set aside in admitted assets by an entry of the form:

Expenses of General Administration.

To Contingency Reserve.

The Expenses of General Administration for the creation of the Contingency Reserve should be treated like any other expenses of General Administration and should fall on the Policyholders like any other expenses of General Administration.

The Contingency Reserve will thus be set aside as if it were a liability, which, however, in fact it is not, and will go over into the next year classed as a liability.

At the beginning of the next year the old Contingency Reserve should be eliminated and the new for the year brought into existence by the following entries:

Contingency Reserve (Old).

To Expenses of General Administration.

Expenses of General Administration.

To Contingency Reserve (New).

As long as dividends are positive the Contingency Reserve will not be needed. It will be needed, however, if dividends become negative.

If dividends become negative they should be carried forward as liabilities, each negative dividend to be considered a liability against its proper Policyholder. Present negative dividends are expected to be off-set and paid by future positive dividends.

In the meantime the Contingency Reserve is needed to keep the Company off the Dead Line of the Legal Reserve.

Of course, if dividends are permanently negative the Company is insolvent, in fact, no matter how large its Contingency Reserve may now be, and no matter how well it may now be able to comply with the technical Legal Reserve laws.

If the dividends of some Policyholders are negative and of others positive, this shows that the premiums are not properly loaded and that the premiums are inequitable as between the different Policyholders.

As dividends are the sums of four quantities, to-wit: savings in expense, interest, mortality and lapses, some of these elements may be positive and some negative. The dividend, as a whole, is negative when the sum of all the parts is negative.

Suppose, at the end of any year, the sum total of the dividends in the Company is negative. The Contingency Reserve will necessarily become partially depleted.

The best plan, however, is always to carry forward the Contingency Reserve as a quasi liability for its full standard amount, whether the Company has enough good admitted assets to cover the Contingency Reserve or not. The Policyholders should be considered as owing to the Company enough to make up the Contingency Reserve, and the Policyholders should pay these debts as soon as possible out of dividends or otherwise.

The entry at the beginning of the year:

Expenses of Administration.

To Contingency Reserve.

creates the Contingency Reserve.

The calculation of dividends by the Legal method and the carrying forward of negative dividends as liabilities constitutes the practical way in which the Contingency Reserve is to be used to cover fluctuations.

The closing entry at the termination of business:

Contingency Reserve

To Expenses of General Administration,

re-distributes the unused Contingency Reserve back to the Policyholders in the legal proportions.

CHAPTER IV.

DIVIDEND CALCULATIONS.

In our opinion the question of dividend calculations has been too much regarded as a question of expediency from the Company's side. Thus considered, no solution has ever been reached.

We attack the question from the Policyholder's side. Primarily, we look upon the question as a legal one. What are the Policyholder's legal rights?

The right to dividends exists in the Policyholders. The duty of calculating dividends by the legal method rests upon the Company.

The law fixes the title to all property.

The property may be acquired by purchase or inheritance. The property may be the original property or it may be an off-spring, product or profit. The property may be owned by an individual or may be owned jointly or in common by a number of different parties. No matter how acquired or created or in what proportions owned, the title is a question of law under the evidence.

RESULTING TRUSTS.

The fund out of which dividends are to be paid constitutes a "Resulting Trust." The fund grows or "Results" collaterally out of the business. There is no express contract creating the fund or establishing the "Trusts," but these result from actual conditions.

In calculating premiums each Company makes pre-suppositions as to the future. The Company assumes an expense rate, an interest rate and a mortality rate and on these pre-suppositions calculates the premiums each Policyholder is to pay.

The Policyholder pays his premiums upon the idea that the pre-suppositions are correct.

In fact, the pre-suppositions are nearly always too severe against the Policyholder. Profits or savings, therefore, "Result" from this fact and these profits constitute the "Resulting Trust."

The question of dividend distributions is the question of determining the amount of this "Resulting Trust" and the proportions in which

it is owned, and therefore the proportions in which it is to be divided among the Policyholders.

ELEMENTS ENTERING INTO DIVIDEND CALCULATIONS.

The trust fund out of which dividends are to be paid "Results" partly from savings in expenses, partly from savings in interest, partly from savings in mortality and partly from savings in lapses and surrender values. Each of these four elements must be considered in determining the amount of the fund and the proportions in which it is to be assigned to the individual Policyholders.

Efforts have been made to reduce dividend calculations to the consideration of "One Factor" or "Two Factor" or "Three Factor" methods only.

The object of this short-cut would seem to be a question of ease in calculation or a question of expediency from the Company' side and not a question of legal right from the Policyholder's side.

Considered as a question of legal right from the Policyholder's side it seems self-evident that all four sources of savings should be taken into account.

The Law looks, however, only to practical results and the Law will permit a "One Factor" method or "Two Factor" method or "Three Factor" method, provided it can be shown that these short-cuts produce practically the same results as would be arrived at by detailed legal methods.

THE DUTY OF DIVIDEND CALCULATIONS.

In dividend calculations the Company represents both sides. The Company represents both itself and the Policyholder and acts both as Judge and as Jury.

It is questionable if a Company can by any agreement with the Policyholder relieve itself of the burden of calculating and paying dividends upon correct legal principles.

Where a Policyholder agrees in advance to accept and ratify the Company's method of Accounting and the Company's method of calculating dividends and the Company's actual determination of the amount due the Policyholder in dollars and cents, what is the real fundamental meaning of this agreement?

The meaning will depend upon the attendant facts and the relations of the parties to each other.

Has the Company at the time of the contract any definite and determinate method of Accounting?

Does the contract refer to this definite determinate method?

Or does the contract refer to whatever method the Company may choose to adopt in the future.

Does the Policyholder know what the Company's method of Accounting is?

Does the Policyholder know or understand any method of Life Insurance Accounting or of dividend calculations?

Can the Policyholder understand any method?

Does the Company know that the Policyholder cannot understand?

Can the minds of two contracting parties meet on an indefinite proposition, or where one of them cannot understand the proposition and the other knows that he cannot understand?

Is it the purpose of the Policyholder to give the Company *carte blanche* to calculate dividends in any manner it pleases, whether legal or illegal?

The consideration of the above questions will, we believe, convince any one that the real meaning of the contract is this:

The Policyholder creates the Company the trustee of the Policyholder to do the Accounting and to calculate dividends according to fundamental rules of law and equity.

It is of the utmost importance, therefore, that every Company should know the legal method of dividend calculations in order to protect itself.

INCIDENCE OF EXPENSES AND PROFITS.

Expenses may be looked upon as negative profits and profits as negative expenses. The law for the assignment of expenses is thus the same as the law for the assignment of profits.

The assignment of expenses is regulated by the same general rules as the tax laws.

The assignment of profits are these same laws reversed.

The same fundamental principles also underlie questions in Political Economy as to whether increased costs falls on the consumer or the manufacturer or the carrier or upon whom the ultimate benefit of any cheap production falls.

There are three distinct elements entering into all these questions:

First. Classifications.

Second. The determination of the proximate subject matter.

Third. The ultimate incidence, or the thing or person ultimately benefited or injured.

The Life Insurance Company is concerned chiefly with the first and second of these elements; to-wit: classifications and the determination of the proximate subject matter.

Into the third, or the ultimate remote consequential incidence of the benefit or cost the Courts do not go, neither is the Life Insurance Company justified in attempting to go. These remote, contingent consequences belong to the most difficult portion of Political Economy and do not constitute a part of the practical administration of law nor the practical working of a Life Insurance Company.

The law charges each item of expense and credits each item of profit directly against that proximate subject matter to which, under the evidence, the expense or profit relates. The remote, contingent ultimate incidence is allowed to take care of itself.

The evidence may show that the proximate subject matter is an individual thing or class or the evidence may fail to point out any proximate subject matter at all. If the evidence fails to point out any subject matter the law supplies the subject matter; to-wit: the contracts simply as contracts, each measured by the single premium.

Though these fundamental principles may appear in one sense simple and elementary, and in another sense abstract, yet it is utterly impossible without these principles to arrive at the legal method of dividend calculations, and as this duty rests upon the Company we feel justified in urging attention to this legal method.

EXPENSES.

In classifying expenses our first question is, what are the subject matters to which the expenses relate? Do the expenses relate to an individual thing or to a class, or, are we unable to relate the expense to any one thing or class, and if to a class, in what character is the class determined?

First. Expenses of Premium Collection.

A. Commissions on first premiums. Each item of commission relates to an individual premium. This individual premium is the proxi-

mate subject matter against which the law will charge the commission expense.

Into the remote questions of whether other Policyholders are benefited or not, the law will not go; unless it is clearly shown that others are benefited and how much and that they have received this benefit under an implied contract. If all this is shown the other Policyholders may be charged as much as they are benefited but no more.

But this does not vary the original rule. The first year's commission will still be charged against the first premium and must be paid in full out of the first premium, no matter whether other Policyholders have to pay for collateral benefits or not.

B. General expenses of premium collection. Outside of commissions there are other expenses of premium collection which the evidence will relate not to any particular premium or premiums, but to the class of premiums as a whole. The proximate subject matter here is the class of premiums as a whole.

The general expenses of premium collection will be charged by law as an advalorem percentage charge against all premiums alike.

The law will not consider how collecting the premium of A will affect B. If B has paid all his premiums he should not be charged anything for collecting the premium of A, but A must pay these expenses himself.

Under the head of general expenses of premium collection we may include renewal commissions, agency salaries, rents for agency purposes, agency supervision, traveling expenses, agents' licenses, and all other expenses connected with the agency system. Also medical expenses and inspection of risks.

Some of these may not strictly fall in the class of general expenses of premium collection, but as the law looks only to practical results and as dividends are not practically affected by this short cut, it is permissible to make it.

Like the judgment of a Court, dividend calculations are based on the evidence and should not exceed nor fall short of the evidence. The calculation can be no better than the evidence.

It is probably true that connected with every premium collection there is a constant expense, and strictly speaking the general charge of premium collection ought to be a constant plus a percentage.

But the evidence seldom, and perhaps never, goes far enough for us to know what this constant is. We follow the evidence, therefore (all the evidence that we can possibly obtain), by charging the general expenses of premium collection as a percentage.

Second. The Expenses of General Administration.

Outside the expenses of premium collection there are expenses of a still more general nature which the evidence will fail to relate to any individual thing or person or policy or class more than to any other. These expenses may aptly be called expenses of General Administration, as already mentioned.

In the class of expenses of General Administration may be enumerated, salaries of Home and Branch officers, rents for general purposes, furniture and fixtures, general licenses to do business, general Insurance taxes, traveling expenses for general purposes; office expenses, such as postage, telegrams, express charges, messages, exchanges, printing and stationery, Director's fees, Stock Dividends, general legal expenses and all other expenses, that, so far as we know relate to the Company as a whole, and do not particularly relate to one thing or class more than to any other.

What is the proximate subject matter to which such expenses of General Administration relate?

Evidently as a matter of law these expenses must be charged, not against any particular individual or class, for they do not relate to any particular individual or class; but against all contracts in the Company alike, according to the value of the contract simply as a contract. The value of the contract is measured by the single premium, at the time.

The expenses of General Administration constitute the residuary class into which must be dumped all expenses which the evidence fails to relate to any individual thing or class.

Such a residuary class must always exist, for there will always be expenses which the evidence will fail to relate to any individual thing or class. In fact, there will be expenses which do relate to all alike as well as expenses, which from lack of evidence, appear to relate to all alike.

But into this residuary class of General Administration no expense should be placed until all possibility is exhausted of relating the ex-

pense affirmatively to its true proximate subject matter. The residuary class is the last resort after all efforts to classify have failed.

As a practical question, therefore, under the evidence, what are we to do with the Expenses of General Administration?

If the evidence were complete there would be revealed, no doubt, a constant expense in connection with the handling of each policy, but the evidence is never sufficiently reliable to determine what this constant expense is.

Again, if a Life Insurance Policy promised to pay independently of the Life Contingency it would be simply a bills payable and the value of the contract would be the face value of the Policy. The face value of the Policy is prevented from being the value of the contract by the Life Contingency.

Yet we know that the actual benefit to the insured is some function or other of the face value of the policy.

If we had no knowledge whatever we would be compelled by law to charge the expenses as an ad valorem percentage charge against single premiums.

But we are not wholly without knowledge concerning the above expenses of administration. We know that if our knowledge were complete the expenses would be made up of a constant plus a percentage of the single premium plus a function of the Insurance in force, but our knowledge does not go far enough to determine this constant or to determine the function.

We follow such evidence as we have and arrive at practically correct results, and thus comply with all legal requirements, if we charge the above expenses of administration as a uniform ad valorem percentage of the single premium plus the face value of the policy.

If we take the average age in the Company to be about 45 the single premium Whole Life Insurance will be about one-half the sum insured.

We may thus, as a short cut, sufficiently accurate, add .50 to the insurance in force and divide the aggregate expenses of General Administration by this sum and call the result the Administration Ratio.

The Administration ratio thus defined is equal to two-thirds of the expenses of General Administration divided by the Insurance in force. If we multiply this administration ratio by the insurance in force plus the single premium on any Policy we obtain the Policy's pro rata share

of the expenses of General Administration, no doubt with sufficient accuracy for all legal and practical purposes.

If the Policy is a Limited-Pay the expenses of premium collection will cease when premiums are all paid, but the expenses of General Administration will continue. Strictly the loadings should be converted into an annuity during the life of the Policy so as to meet the expenses of General Administration. If, however, savings from interest and mortality are ample to cover the expenses of Administration in all future years, and if the Company is thoroughly satisfied of this, the Company may credit loadings as fast as they are paid. The Company, however, should pursue a uniform rule in this.

Expenses of handling the funds are best considered in connection with interest.

The practical, and at the same time, we claim the sufficiently legal, method of handling the expense account is as follows:

First. Against the first year's premium we charge the first year's commission.

Second. Against all premiums by uniform ad valorem percentage charge we charge the general expenses of premium collection.

Third. Against the Insurance in force, plus the single premium by uniform ad valorem percentage charges we charge the expenses of General Administration.

We credit the policy with the loading.

The difference between the above expense charges and the loading constitutes the dividend for the year assignable to the policy.

INTEREST.

The gross interest including rents of the Company should be ascertained yearly and from the same should be deducted the expenses of Taking Care of the Funds. The difference is the net interest.

Included in the interest may be added such profits or deducted such losses as in the judgment of the Company ought to be so accounted for dividend purposes for the year.

The expenses of Taking Care of the Funds should include taxes, repairs, traveling expenses, foreclosures, legal expenses on account of the Funds and losses, etc.

The Company should take an average of a good many years so as to produce uniformity and each year should calculate and put in its Statement the net amount of interest allowed by the Company for the year as a basis of dividend calculations.

The dividend in respect to any individual policy on account of interest savings is the Mean Reserve multiplied by the difference between the net interest rate allowed for the year and the rate required to maintain the Reserve on the Policy.

MORTALITY.

Each Company should ascertain yearly the tabular net mortality losses (Insurance less Reserve), on each Policy and from this should deduct the Policy's pro rata share of the actual losses for the particular age, Policy year and class of Policy. The result is the dividend for the year.

If the class at the particular age, Policy year and class of Policy is too small to obtain reliable averages the Company must resort to the proper means to determine these averages.

Experience shows that in general medical selection has the effect the first year of reducing mortality by nearly .50, the second year .40, the third year .30, the fourth year .20, and the fifth year .10. After the fifth the mortality is normal.

Medical selection, therefore, has two effects. A temporary effect and a permanent effect. The temporary effect wears off in about five years. After five years the permanent strength of the Policyholder's constitution shows itself and the mortality savings thereafter will be more nearly a uniform percentage.

The best way to determine mortality savings is, therefore, to determine the savings after the fifth year and for the first, second, third, fourth and fifth years to add .50, .40, .30, .20, and .10, or .40, .30, .20, .10 and .00.

The above is the general experience of nearly all Companies and will produce better results than the Company's own experience unless the Company is a very large one.

If, in calculating dividends the Company classifies its mortality risks geographically or by occupations or by character of risks or

otherwise, the Company should so specify in its Statement and should assign to each class the savings in that class according to the foregoing rules.

LAPSES AND SURRENDERS.

The Company should calculate yearly the lapse and surrender rates for different ages, Policy years and classes of Policy.

The dividends assignable to any Policy for the year on account of lapses and surrenders should be determined as follows:

The actual lapse and surrender rate of the Company at the particular age, policy year and class of policy should be multiplied by the percentage of Reserves saved by the Company at the particular age, Policy year and class of Insurance, and the result multiplied by the Reserve on the Policy should be the dividend assignable to the Policy.

If the class at the particular age, Policy year and class of Policy is too small to obtain reliable averages the lapse and surrender rates may be taken to be the experience of Companies generally; to-wit: in the following proportions:

.20 the first year; .12 the second; .08 the third; .05 the fourth, down to nothing the twentieth Policy year. Otherwise the Company may average the results of a good many years.

MEDICAL SELECTION LAPSES AND SURRENDERS.

We give below what may be called the average savings rates from the temporary effect of Medical selection, from lapses and surrenders, and the average per cent of Reserves saved on surrenders.

Policy Year.	Average Savings from Medical Selection.	Average Surrender Rates.	Average per cent. of Surrendered Reserve Saved.	Average per cent. of Existing Reserve Saved.
1	.50	.20	.20	.040
2	.40	.12	.19	.023
3	.30	.08	.18	.014
4	.20	.05	.17	.008
5	.10	.04	.16	.006
6	....	.036	.15	.005
7	....	.032	.14	.005
8	....	.028	.13	.004
9	....	.024	.12	.003
10	....	.020	.10	.002
11	....	.016	.08	.002
12	....	.012	.06	.001
13	....	.008	.04	.....
14	....	.004	.02	.....
15	....	.000	.00	.....

LEGAL CLASSIFICATIONS.

Perfect exactitude in classifying the facts is not possible and is not expected in Life Insurance or any other business.

All that is necessary is that the classifications be sufficient to comply with legal requirements so as to protect the Company in the discharge of its duty.

As a matter of fact slight inaccuracies in classifications will produce no appreciable difference in dividends.

We think it may be safely relied upon that if a Company declares dividends as herein laid down it is within the law. But any material departure will be illegal.

FORMULA FOR DIVIDEND CALCULATIONS.

We bring together here in one place the formula for dividend calculations by the legal method.

EXPENSES.

First premium multiplied by commission rate .....
Premium multiplied by general premium charge ....
(Insurance in force plus single premium) multiplied by general administration ratio ....
Sum of the above three expenses..... .....
That part of the Load on the Policy allowed for the year ....
The difference is the savings from expenses. .....

INTEREST.

Reserve multiplied by interest savings gives the savings on account of interest ....

MORTALITY.

Amount at risk, multiplied by expected death rate, multiplied by savings rate, gives the savings from mortality ....

SURRENDERS.

Reserve multiplied by the Surrender rate, multiplied by the savings rate, is the savings from surrenders. ....

The sum of the above savings from expenses, from interest, from mortality and surrenders constitutes the total dividend.

APPLICATIONS.

To apply this formula in actual practice we will suppose that the fundamental ratios of the Company are as follows:

Commissions the first year ..... .50
General premium charge ..... .10

Administration ratio, or expenses of Administration divided by Insurance in force plus Single Premiums		1.75
Net interest rate realized	.045	
Interest required to maintain the Reserve	.03	
Mortality savings after the fifth year	.10	

Lapse ratio and surrender ratio the standard as given above.

What dividends will be earned by a Twenty-Pay Life Policy for $1,000 issued at age 35 at a premium of $38.34 on a 3 per cent basis? The pure premium will be $29.85.

We give the calculations below:

FIRST YEAR.

Expense—		
Commission First Premium .50 of 38.34	19.17	
General Premium Charge .10 of 38.34	3.83	
General Administration ratio 1.75 × (Insurance + Single Premium)	2.50	
Total charges	$25.50	
Load. (The Load should be converted into a Life Annuity unless savings from interest and mortality are enough to cover future expenses.)	$8.49	
Loss from the Expenses Account		—17.01
Interest—		
Mean Reserve × (.015)=Savings from interest		.39
Mortality—		
Amount of Insurance	$1,000	
Reserve	26	
At risk (Insurance less Reserve)	974	
Tabular Mortality rate	8.94	
Expected loss	8.70	
.10 Expected loss=Savings from mortality		.87
.50 Savings due to Medical selection		4.35
Lapses and Surrenders—		
Terminal Reserve×(.04)		.88
There is thus the first year a loss		—10.52

SECOND YEAR.

Expense—		
.10 of Premium	3.83	
General Administration as before	2.50	
Total expenses	6.33	
Load	8.49	
Savings on account of expenses		2.16
Interest—		
Mean Reserve $49×(.015)=Savings		.78
Mortality—		
Insurance in force	1,000	
Reserve	49	
At risk	951	
Death rate	9.08	
Expected Mortality loss	8.63	
.10 Expected mortality=savings from mortality		.86
.40 Savings due to Medical selection		3.44
Lapses and Surrenders—		
Reserve×(.023)		1.03
Total dividend second year		8.27

In exactly the same way the other Dividends are calculated.

Consider, for instance, the twenty-fifth policy year, after premiums are all paid. There will be no charge for Premium Collection, but the charge for General Administration will continue. There will here be no Load to be credited. The calculations will stand, therefore, as follows:

Interest—		
Reserve 666×(.015)=		9.99
Mortality—		
Insurance	1,000	
Reserve	666	
At risk	333	
Tabular mortality	.040	
Expected loss	13.32	
.10 Savings		1.33
Total		11.32

Expense—

Deduct Administration charges	2.50
Total Dividend twenty-fifth year	8.82

Thus, on a Twenty-Pay Life Policy for 1,000, age 35: Premium, 38.34; Pure, 29.85; Load, 8.49, the final result will stand thus:

Policy Years	1	2	5	10	15	20	30	40
Expense	2.16	2.16	2.16	2.16	2.16	2.16	—2.50	—2.50
Commission—Special	—19.17							
Interest	.39	.78	1.80	3.84	6.24	9.06	10.84	12.36
Mortality	.87	.86	.86	.82	.80	.73	1.10	1.65
Medical — Selection Special	4.35	3.44	.86					
Lapse and Surrender	.88	1.03	.72					
Total Dividend	—10.52	8.27	6.40	6.82	9.20	11.95	9.44	11.51

and proportionally for intervening years.

The dividends the first five years will be as follows:

First year a loss	$—10.52
Second year Dividend	8.27
Third year Dividend	7.72
Fourth year Dividend	7.06
Fifth year Dividend	6.40
Total Dividends	$ 18.93
Average Annual Dividend	3.78

The Company will sustain a loss of $10.52 the first year. The second year the dividend will be $8.27, and dividends will diminish until the fifth year. If we were to smooth these dividends into uniform payments they would amount to about $3.78 per annum. But these, of course, do not represent the Dividends as actually earned.

The savings on interest and mortality are here so great that after the premium-paying period the dividends on this policy will be more than sufficient to pay the yearly expenses of General Administration. If this were not true the loading should be converted into Annuity credits during the entire existence of the policy. Instead of crediting the entire load (2.16) annually for twenty years, we would credit $1.52 annually during the life of the Policyholder.

No Company should declare dividends before they are earned.

In the long run it would be better for the Company and also for the Policyholder if no dividends were declared until the end of the fifth year.

Thereafter dividends run smoothly and might be paid annually or otherwise, according to contract.

Tontine deferred dividends are very desirable. This is an excellent form of contract, both for the Company and for the Policyholder, provided dividends are calculated by the Legal method.

THE AGGREGATE DIVISIBLE SURPLUS.

By the foregoing methods the Company should ascertain the proportions in respect to which the respective policies shall share in the aggregate divisible surplus for the year. The aggregate divisible surplus should be ascertained as follows:

The Company should first set aside enough to satisfy its liabilities as follows:

The Reserves by the Interest and Mortality tables used in calculating premiums upon insurance and endowments in force in the Company, and the net present value of all Annuity policies less the risks of this Company re-insured in other solvent Companies, Reserves to provide for Health and Accident benefits, the present values of all amounts not yet due on Supplementary Contracts, amounts due on surrendered and lapsed policies, death losses unpaid, matured endowments unpaid, claims resisted by the Company, unpaid Annuity claims, unpaid Supplementary Contracts, premiums paid in advance, unearned interest and rents paid in advance, commissions earned and unpaid, salaries, rents, office expenses, medical examiners' fees, legal fees, taxes, licenses, stock dividends, due or accrued, and all savings accumulated and undistributed held on account of annual or deferred dividends whether declared or not, and Special reserves held for special purposes upon which the Company is liable and all other liabilities of all sorts.

In addition to the liabilities of the Company as enumerated above, the Company should set aside the Contingency Reserve, to meet unlooked for fluctuations and contingencies, including the Capital Stock and Surplus accumulated by the Stockholders of the Company.

The balance of the Assets of the Company constitutes the aggregate divisible surplus for the year. This aggregate divisible surplus for the

year should be paid or credited to the respective policies or classes of policies in the Company substantially in the proportions determined above.

PRACTICAL METHODS OF DIVIDEND CALCULATIONS.

Having determined the fundamental ratios for the year, dividends should be calculated for each kind of policy for ages 20, 25, 30, 35, 40, 45, 50, 55, 60, for policy years at intervals of five years and interpolated between.

This work is mechanical and simple and can be done in a very short time.

As the averages of a good many years should be taken for the purpose of uniformity the fundamental ratios and therefore the dividends will change very little from year to year.

If the sum of the dividends thus calculated does not exactly agree with the aggregate divisible surplus the dividends should be proportionally increased or diminished.

CHAPTER V.

STATEMENTS.

The Statements of a Life Insurance Company ought to bring together in systematic order the entire business of the Company so classified and arranged that the rights of the individual parties interested in the business may clearly and easily be ascertained. Thus, the dividends due each Policyholder ought to be calculable directly from the Statement.

If the books have been kept according to the method laid down in the foregoing pages the Statement will be little less than transcripts from the books.

We seek to give here the form of the Annual Statement that should be made by each Company to the Insurance Departments for the information of Policyholders and the Public, complying with the above conditions.

After the Statement we give explanations as to the easiest way to prepare the Statement and the Gain and Loss Exhibit attached to the Statement.

The Gain and Loss Exhibit in effect is merely a portion of the Statement re-arranged in a different way, presenting the facts in a different light.

Everything that is material should be in the Statement itself.

STATEMENT OF THE _____ LIFE INSURANCE COMPANY, From _____ To _____

I. ASSETS AT THE BEGINNING OF THE PERIOD.

	LEDGER ASSETS Book Values	NON-LEDGER ASSETS									TOTAL Non-Ledger Assets	TOTAL ASSETS
		INTEREST		RENT		Excess of Market over Book Values	NEW PREMIUMS		RENEWALS			
		Due	Accrued	Due	Accrued		Pure	Load	Pure	Load		
Admitted Assets												
Non-Admitted Assets												

II. ADDITIONS TO ASSETS.

	HOW PAID						PURE	LOAD	TOTALS
	Dividends	Commissions	Cash	Notes and Liens	Surrender Values	Sundries			
(A) First Year's Premiums									
Original Insurance									
" Annuities									
Changed Generally									
" Dividend Additions									
" Paid-Up Insurance									
" Extended Insurance									
" Supplementary Contracts									
Gross Total First Year's Premiums									
Less First Year's Reinsurance									
Total New Premiums									
Renewal Premiums, Insurance									
" " Annuities									
" " Revived									
Total Renewal Premiums									
Less Reinsurance									
Total Premium Receipts Less Reinsurance									

(B) Gross Interest, Mortgage Loans
" " Collateral Loans
" " Bonds
" " Stocks (Dividends)
" " Premium Notes and Policy Loans
" " Deposits in Bank and Trust Co
" " Miscellaneous
Gross Rents

(C) Profits on Sales and Maturities, Real Estate
" " " Bonds
" " " Stocks
" " " Miscellaneous

(D) Profit from Increase in Book Values, Real Estate
" " " " " Bonds
" " " " " Stocks
" " " " " Miscellaneous

(E) Premium Notes, Liens, etc., Restored by Revivals
Considerations for Supplementary Contracts (certain)
Premiums Paid in Advance
Interest Paid in Advance
Dividends Left on Deposit
Moneys Borrowed
Increase in Capital or Promotion Funds
Miscellaneous

Ledger Assets at the Beginning of the Business ..... $
Total Additions to Assets ..... $
Original Ledger Assets Plus Additions ..... $

III. DEDUCTIONS FROM ASSETS.

	CASH	LEFT ON DEPOSIT	IN PAYMENT OF DEBTS		IN PAYMENT OF PREMIUMS							TOTALS
			Premium Notes	Liens, etc.	Original Insurance	Generally	Pd. Add.	Paid Up	Extended	Supplementary	Sundries	
(A) Payments to Policyholders												
Death Claims												
" Additions												
Matured Endowments												
" Additions												
Life Annuities												
Supplementary Contracts (Life)												
Surrender Values												
Dividends												
Miscellaneous												
Totals												
Less Reinsurance												
Totals												

(B) Expenses, Premium Collection
Commissions, First Year
" Renewals
Commuted Commissions
Bonuses and Prizes
Agency Salaries
Rents for Agency Purposes
Agency Supervision
" Traveling
Medical Salaries
" Fees
Inspection of Risks
Miscellaneous
Expenses of General Administration
Salaries, Home and Branch Officers
Rents for General Purposes
Furniture and Fixtures
Postage, Telegrams, Telephones
Express, Messages, Exchange
Printing and Stationery
Advertising
Insurance Taxes
Department Fees
General Licenses
Municipal Licenses and Fees
Agency Licenses
Investigating and Settling Claims
Traveling Expenses for General Purposes
Legal Expenses

Dividends to Stock Holders
Payments on Special Contracts
Directors Fees and Expenses
Miscellaneous
Expenses of Handling the Funds
Taxes on Real Estate
" Other Funds
Repairs
Traveling
Foreclosure and Other Legal Expenses

(C) Losses on Sales and Maturities, Real Estate
" " " " Bonds
" " " " " Stocks
" " " " " Miscellaneous

(D) Decrease in Book Values, Real Estate
" " " " Bonds
" " " " Stocks
" " " " Miscellaneous

(E) Premium Notes, Policy Loans, etc., Cancelled by Surrender
Premiums Paid in Advance (Earned)
Interest Paid in Advance (Earned)
Dividends Left on Deposit (Returned)
Moneys Borrowed (Returned)
Increase in Capital
Promotion Moneys (Returned)
Other Deductions

Original Ledger Assets Plus Additions ..... $
Deductions ..... $
Ledger Assets at End of Period ..... $

IV. ASSETS.

	LEDGER ASSETS Book Values	NON-LEDGER ASSETS									TOTAL Non-Ledger	TOTAL
		INTEREST		RENTS		Excess of Market over Book Values	PREMIUMS					
							NEW		RENEWAL			
		Due	Accrued	Due	Accrued		Pure	Load	Pure	Load		
Real Estate												
Real Estate Mortgages												
Bonds												
Stocks												
Collateral Loans												
Policy Loans and Liens												
Premium Notes, First Year												
" " Renewals												
Automatic Policy Loans												
Cash on Hand in Bank and Trust Co.												
Agents' Balances												
Bills Receivable and Personal Debts												
Due from other Companies												
Premiums Due, Uncollected												
Deferred Premiums												
Furniture, Fixtures and Supplies												
Other Assets												
Totals												
Non-Admitted												
Agents' Balances												
Bills Receivable and Personal Debts												
Furniture, Fixtures and Supplies												
Policy Loans in Excess of Reserve												
Other Non-Admitted												
Total Non-Admitted												
Total Admitted Assets												

V. LIABILITIES.

	Ledger	Non-Ledger
(A) Policy Reserve		
Less Reserves on Reinsurance		
(B) Present Value of other Contracts		
(C) Death Losses, Due		
" " Being Adjusted		
" " No Proof Received		
Matured Endowments Due		
Annuity Claims Due		
Supplementary Contracts Due		
Claims Resisted		
(D) Dividends Due and Accrued		
" On Deposit		
" Deferred Unapportioned		
(E) Expenses of Premium Collection, Due and Accrued		
" " Administration, Due and Accrued		
" " Handling the Funds, Due and Accrued		
(F) Premiums Paid in Advance		
Interest and Rents Paid in Advance		
Contingent Commissions to Agents		
(G) Money Borrowed or Deposited		
Board and Special Contracts		
Promotion Liabilities		
(H) Capital Stock		
Surplus		
(I) Other Liabilities		

VI. CONTINGENCY RESERVE.

Contingency Reserve	
Capital Stock	
Surplus to Stock Holders	
Additional Contingency Reserve	
Total Contingency Reserve	

Standard, ____ Times Fluctuations; $____ Assets; $____ Mortality.

VII. FLUCTUATIONS.

	On Properties Held from Beginning to End of Year	On Properties Sold During the Year	On Properties Bought During the Year
Market Value at Beginning of Year			
Actual Prices Bought During Year			
" " Sold " "			
Permanent Additions " "			
Totals			
Market Values at End of Year			
Per Cent. of Yearly Fluctuations			
(Give above for each class of security)			

VIII. EXHIBIT OF POLICIES.

	WHOLE LIFE		ENDOWMENT		TERM AND MISCEL.		TOTAL	
	No.	Amount	No.	Amount	No.	Amount	No.	Amount
(A) The Amount of Insurance								
At End of Previous Year								
Issued During Year								
Revived During the Year								
Increased								
Return Premium								
Dividend Additions								
Totals Before Transfers								
Transfers—Deductions								
Transfers—Additions								
Balance of Transfers								
Totals After Transfers								
Deduct Ceased								
By Death								
" Maturity								
" Expiry								
" Surrender								
" Lapse								
" Decrease								
" Not Taken								
Total Terminated								
Outstanding at the End of the Year								
Policies Reinsured								

(B) Annuities		(C) Industrial Insurance	
Number of Annuities in Force		Number of Policies in Force	
Expectation of Annuities in Force		Amount of Insurance in Force	
Number of Annuities being Paid			
Amount of Annual Payments on Annuities			

IX. CLASSIFICATIONS OF ASSETS AT BEGINNING AND AT END OF PERIOD.

	Beginning	Acquired	Increase Value	TOTAL	Disposed of	Decrease Value	TOTAL	TOTAL		END
								Additions	Deductions	
Real Estate										
Real Estate Mortgages										
Bonds										
Stocks										
Collateral Loans										
Policy Loans and Liens										
Premium Notes, First Year										
" " Renewals										
Automatic Policy Loans										
Cash on Hand in Bank and Trust Co										
Agent's Balances										
Bills Receivable and Personal Debts										
Due from other Companies										
Premiums Due, Uncollected										
Deferred Premiums										
Furniture, Fixtures and Supplies										
Other Assets										

IV. ASSETS.

	LEDGER ASSETS Book Values	NON-LEDGER ASSETS									TOTAL Non-Ledger	TOTAL
		INTEREST		RENTS		Excess of Market over Book Values	PREMIUMS					
							NEW		RENEWAL			
		Due	Accrued	Due	Accrued		Pure	Load	Pure	Load		
Real Estate												
Real Estate Mortgages												
Bonds												
Stocks												
Collateral Loans												
Policy Loans and Liens												
Premium Notes, First Year												
" " Renewals												
Automatic Policy Loans												
Cash on Hand in Bank and Trust Co.												
Agents' Balances												
Bills Receivable and Personal Debts												
Due from other Companies												
Premiums Due, Uncollected												
Deferred Premiums												
Furniture, Fixtures and Supplies												
Other Assets												
Totals												
Non-Admitted												
Agents' Balances												
Bills Receivable and Personal Debts												
Furniture, Fixtures and Supplies												
Policy Loans in Excess of Reserve												
Other Non-Admitted												
Total Non-Admitted												
Total Admitted Assets												

V. LIABILITIES.

	Ledger	Non-Ledger
(A) Policy Reserve		
Less Reserves on Reinsurance		
(B) Present Value of other Contracts		
(C) Death Losses, Due		
" " Being Adjusted		
" " No Proof Received		
Matured Endowments Due		
Annuity Claims Due		
Supplementary Contracts Due		
Claims Resisted		
(D) Dividends Due and Accrued		
" On Deposit		
" Deferred Unapportioned		
(E) Expenses of Premium Collection, Due and Accrued		
" " Administration, Due and Accrued		
" " Handling the Funds, Due and Accrued		
(F) Premiums Paid in Advance		
Interest and Rents Paid in Advance		
Contingent Commissions to Agents		
(G) Money Borrowed or Deposited		
Board and Special Contracts		
Promotion Liabilities		
(H) Capital Stock		
Surplus		
(I) Other Liabilities		

VI. CONTINGENCY RESERVE.

Contingency Reserve	
Capital Stock	
Surplus to Stock Holders	
Additional Contingency Reserve	
Total Contingency Reserve	

Standard, ____ Times Fluctuations; $ ____ Assets; $ ____ Mortality.

VII. FLUCTUATIONS.

	On Properties Held from Beginning to End of Year	On Properties Sold During the Year	On Properties Bought During the Year
Market Value at Beginning of Year			
Actual Prices Bought During Year			
" " Sold " "			
Permanent Additions " "			
Totals			
Market Values at End of Year			
Per Cent. of Yearly Fluctuations			
(Give above for each class of security)			

VIII. EXHIBIT OF POLICIES.

	WHOLE LIFE		ENDOWMENT		TERM AND MISCEL.		TOTAL	
	No.	Amount	No.	Amount	No.	Amount	No.	Amount
(A) The Amount of Insurance								
At End of Previous Year								
Issued During Year								
Revived During the Year								
Increased								
Return Premium								
Dividend Additions								
Totals Before Transfers								
Transfers—Deductions								
Transfers—Additions								
Balance of Transfers								
Totals After Transfers								
Deduct Ceased								
By Death								
" Maturity								
" Expiry								
" Surrender								
" Lapse								
" Decrease								
" Not Taken								
Total Terminated								
Outstanding at the End of the Year								
Policies Reinsured								

(B) Annuities		(C) Industrial Insurance	
Number of Annuities in Force		Number of Policies in Force	
Expectation of Annuities in Force		Amount of Insurance in Force	
Number of Annuities being Paid			
Amount of Annual Payments on Annuities			

IX. CLASSIFICATIONS OF ASSETS AT BEGINNING AND AT END OF PERIOD.

	Beginning	Acquired	Increase Value	TOTAL	Disposed of	Decrease Value	TOTAL	TOTAL Additions	TOTAL Deductions	END
Real Estate										
Real Estate Mortgages										
Bonds										
Stocks										
Collateral Loans										
Policy Loans and Liens										
Premium Notes, First Year										
" " Renewals										
Automatic Policy Loans										
Cash on Hand in Bank and Trust Co										
Agent's Balances										
Bills Receivable and Personal Debts										
Due from other Companies										
Premiums Due, Uncollected										
Deferred Premiums										
Furniture, Fixtures and Supplies										
Other Assets										

GAIN AND LOSS EXHIBIT.

I. EXPENSES.

	Pure	Load
Gross Premiums Collected During the Year		
Net Uncollected and Deferred Premiums		
Gross Premiums of This Year Paid in Advance Last Year		
Totals		
Net Uncollected and Deferred Premiums Belonging to Last Year		
Gross Premiums Paid This Year in Advance Belonging to Next Year		
Totals		
The Difference is Premiums of This Year		
Loadings Belonging to This Year		
Aggregate Gain or Loss from Expense Account		

	Prem. Col.	Administration
Expenses Paid This Year		
Due and Accrued		
Totals		
Deduct Expenses Due and Accrued Last Year.		
Net Expenses of the Year		
Expenses Belonging to This Year		

INDIVIDUAL EXPENSE RATIOS.

(1) Premium Collection	
Total Cost of Premium Collection	
First Year's Commissions	
Difference to be Charged against all Premiums	
Total Premiums	
General Per Cent. Charged on Premiums	
(2) General Administration	
The Expense of General Administration	
The Amount of Insurance	
Expectation on Annuities	
Aggregate—Amount of Single Premiums	
Aggregate—Ins. Annuities and Single Premiums	
General Administration Ratio	

COMMISSION RATES.

	1st	2d	3d	4th	5th et al.
Ordinary Life					
20 Pay "					
15 " "					
10 " "					
20 Year Endowment					
15 " "					
10 " "					
Term and Other Miscel.					

II. INTEREST.

Interest, Rents and Profits Received During the Year	
" " " " Due and Accrued	
" " " " Paid Last Year in Advance	
Total	
Interest, (Rents and Profits) Due and Accrued Last Year	
" " " " Paid in Advance This Year	
Total	
The Difference is the Interest for the Year	

Expense of Handling the Funds Paid this Year	
Due and Accrued	
Total	
Deduct Expenses Due and Accrued last Statement	
Net Expense of Handling Funds	
Net Income from Investments	
Interest Required to Maintain Reserve	
Aggregate Interest Savings	
Net Interest Rate ____%	

INDIVIDUAL INTEREST EARNINGS.

The average net Interest Rate of the Company for the past _____ Years is _____%.
The Interest Rate allowed by the Company for the calculation of Dividends for the Year is _____%.
Thus, the Individual Policy Dividend on account of Interest equals Mean Reserve × (_____% less Reserve Rate).

III. MORTALITY ACCOUNT.

	POLICY YEARS				
	1st Year	2d Year	3d Year	4th Year	5th and Subsequent Years
INSURANCE ACCOUNT					
Tabular (Expected) Mortality Losses (Insurance Less Reserve)					
Actual Losses Belonging to the Year (Insurance Less Reserve)					
Aggregate Mortality Savings for the Year					
Per Cent. Actual to Expected					
ANNUITY ACCOUNT					
Tabular (Expected) Disbursements on Annuities					
Reserves Expected to be Released by Death					
Net Expected Disbursements to Annuitants					
Actual Annuity Claims Belonging to the Year					
Reserve Actually Released by Death					
Net Actual Annuity Claims Incurred for the Year					
Aggregate Savings on Account of Annuities					
Per Cent. Savings to Expected					

IV. SURRENDER ACCOUNT.

	POLICY YEARS				
	1st Year	2d Year	3d Year	4th Year	5th and Subsequent Years
Mean Insurance in Force					
Insurance Lapsed and Surrendered During the Year					
Lapse and Surrender Rate					
Reserves on Lapsed and Surrendered Policies					
Surrender Values and How Settled					
Cash					
Debts Cancelled					
Premiums for Other Insurance					
Total Surrender Values					
Total Savings by Surrender and Lapse					
Ratio of Savings to Reserves on Lapsed and Surrendered Policies					
INDIVIDUAL SAVINGS RATE.					
Ratio of Lapses and Surrenders to Mean Insurance					
Ratio of Savings to Reserves on Lapsed and Surrendered Policies					
Ratio of Savings to Reserves on Policies not Lapsing or Surrendered					

HOW TO MAKE OUT THE STATEMENTS.

First. Assets at the beginning of the period.

These should be taken from the last Statement.

For the new Statement we do not need the non-ledger assets from the last Statement, but they are put here simply for comparison, and clearness.

Second. Additions to assets.

The facts and classifications are given immediately in the Journals and Ledgers.

In the Ledger and as far as possible in the Journal should be kept separate accounts, pages, columns or divisions with the sub-divisions of premiums, interest, sources of profit and all other classifications named in the Statement. Of course this does not include the modes of payment along the top of the various diagrams.

From the Ledger the total columns should be filled in and the analysis as to how payments were made should be taken from the Journals.

In filling out the schedule of premiums the amounts paid in dividends, commissions, cash, notes and liens and surrender values will be taken from the Premium Journal and the totals from the Ledger and the sundries column will be used to balance. Similarly with other such schedules.

Third. Deductions from assets.

Here, also, the totals should be first taken from the Ledger.

The analysis of the payments to Policyholders will be taken from the Insurance Terminated Journal or Ledger.

The schedule of premiums and the schedule of payments to Policyholders may be checked against each other.

Thus, premiums that are paid by dividends in the premium exhibit will also appear in the payments to Policyholders exhibit as dividends used to pay premiums, etc.

In the exhibit of payments to Policyholders we note supplementary contracts appear in the schedule to the left and also in the list of how paid at the top of the schedule.

This is evidently necessary, as the following instance will show:

Suppose the proceeds of a death claim used to purchase a life annuity on the beneficiary. It must be entered opposite death claims under supplementary contracts.

When now these yearly annuities are paid to the beneficiary in cash they must be entered opposite supplementary contracts and under cash.

Fourth. Assets.

If to the Ledger assets at the beginning of the period we add the additions and subtract the deductions we should obtain the assets at the end of the period.

The easiest way to check the work and to secure a balance is to use the trial balances at the beginning of the period and at the end of the period.

At the beginning of the period, which should be the beginning of the year, the trial balance should consist of nothing but assets on the left and liabilities on the right.

Assets at the beginning:	Reserves.
	Liabilities.
	Surplus.

During the progress of the business the assets will be increased as follows:

Increase in Assets:	Premiums.
	Interest.
	Profit on sales and maturities.
	Profit from changes in book values.
	Increase in liabilities.

During the progress of the business the assets will be diminished as follows:

Death claims.	Dimunition of Assets.
Matured endowments.	
Annuities.	
Dividends.	
Surrender values.	
Expenses.	
Losses on sales and maturities.	
Losses in book values.	
Decrease in liabilities.	

If we take the trial balance at the end of the year and analyze it according to the above scheme and put in one place the increase in assets and in another place the decrease in assets and in another the assets at

the end of the period and at another the liabilities at the end of the period and compare the assets and liabilities at the end with the assets and liabilities at the beginning, we very easily strike a balance by comparison with the trial balances at the beginning and at the end.

Fifth. Liabilities.

Just as the assets are divided into Ledger assets and Non-Ledger assets the Liabilities may conveniently be divided in the same way.

Sixth. Contingency Reserve.

The standard of safety adopted by the Company and the amount of Contingency Reserve on account of assets and on account of mortality respectively should be given in the Statement.

Seventh. Fluctuations.

The fluctuation rates are necessary for the proper determination of the Contingency Reserve.

Eighth. Exhibit of Policies.

The exhibit of policies is not strictly necessary for the purposes of Accounting, but of course is of very great interest and is in fact the basis of the whole business.

Ninth. Classification of Assets.

This is another way of exhibiting how the assets grow from their original state at the beginning to their final state at the end of the period. It is not strictly a part of the Accounting, but is an interesting and useful exhibit.

The foregoing exhibits give the Statement proper of the Company. The Gain and Loss Exhibit exhibits the same facts under different arrangements and in different lights.

GAIN AND LOSS EXHIBIT.

First. Expenses.

The Gain or Loss from expenses is the gain or loss from the loading. The loadings are intended to pay expenses.

In the Statement the loadings are included in the premium receipts on the credit side.

In the Statement the expenses of Premium Collection and expenses of General Administration appear on the debit side. The difference between the loadings and these expenses constitutes the aggregate dividend from the Expense Account.

But this aggregate expense saving is in itself of little value. The individual expense ratios are the things that are of importance.

The Gain and Loss Exhibit should show as is indicated the commission rates on first and renewal premiums and the ad valorem percentage charge per premium for the general expenses of premium collection and and also the general administration ratio for expenses of General Administration.

It will be remembered that only future net or pure uncollected and deferred premiums are admitted Assets (the Legal Reserve liability in fact assuming that these premiums have been paid). But unpaid loadings are not admitted assets, nor are expenses paid in advance.

Second. Interest.

The interest payments including rents and profits appear in the Statement on the credit side.

Apparently in the Statement there is no corresponding charge against the interest by which the profit and loss is to be ascertained.

But the interest charge is merged in and disguised in the Legal Reserve liability. The Legal Reserve liability is in fact a charge covering expected interest and expected mortality.

Thus, the real basis of profit or loss is the actual interest earned compared with the interest charged in the Legal Reserve.

Thus, the difference between the net interest actually earned by the Company and the interest required to maintain the Reserve constitutes the aggregate profit or loss from interest.

This aggregate interest profit or loss must be individualized and apportioned to the individual policyholders as a basis of Dividend calculations. The obvious method is to average the net interest earnings over a sufficient number of years to obtain uniformity. The difference between the rate allowed for the year and the rate to maintain the Reserve is the profit or loss rate, which multiplied by the Policyholder's Reserve gives his profit or loss.

Third. Mortality Account.

In the Statement the actual death losses, matured endowments, annuity payments, etc., appear on the debit side.

As in the case of interest, so in the case of mortality, there is apparently no corresponding charge on the liability side by comparison with which to determine gain or loss.

But as in the case of interest, so in the case of mortality, this liability is merged in and disguised in the Legal Reserve liability. The Legal Reserve liability includes liability for expected mortality according to the table.

Thus, the difference between the actual and expected net mortality losses constitutes the aggregate savings from mortality.

These must be individualized for different policy years and if we wish, for different ages and kinds of insurance as a basis for Dividend calculations.

Fourth. Surrender Account.

In the Statement will be shown on the debit side the surrender values allowed to Policyholders who lapse or surrender.

Just as in the case of interest and mortality, so in the case of surrender values, the corresponding liability with which actual surrender payments are to be compared is merged in and disguised in the Legal Reserve. The Company is charged the amount of the Legal Reserve and settles this liability for, in most cases, a smaller surrender value.

Thus, the difference between the Reserve liabilities and the surrender values gives the gain or loss from surrenders.

We need also to individualize these savings to show how much is assignable to policies in the first, second and third policy years, etc., and if we wish for different ages and kinds of policies as a basis of Dividend calculations.

CHAPTER VI.

EXAMINATIONS AND VALUATIONS.

Examinations and Valuations should be looked upon as part of the Accounting of the Company to the Stockholders and Policyholders and should have two objects:

1st. Solvency, to see whether the Company can carry out its contracts at all.

2d. Dividends, to see what profits have arisen or are likely to arise.

NET VALUATIONS AND LEGAL RESERVES.

There are two ways in which the Legal Reserve Net Valuation laws may be looked upon:

1st. As a substitute for all Life Insurance Accounting.

2d. As conditions with which Life Insurance Accounting must conform.

The marked tendency has been to look upon the Legal Reserve Net Valuation laws as substitutes for all Life Insurance Accounting.

In our opinion incalculable injury has been done the cause of Insurance by what seems to us this false construction of the Legal Reserve laws.

Let us see exactly what Net Valuation is; what it covers and what it does not cover.

The typical statute passed by nearly all the states establishing the Legal Reserve is about as follows:

"The net value of a policy at any time shall be taken to be the single net premium which will at that time effect the insurance, less the value at that time of the future net premiums called for by the table of mortality and rate of interest designated."

Here the policy discounted by mortality and interest is charged as a liability against the Company.

Here also the Company is credited the present value of future net premiums. This in effect allows future net premiums as admitted assets.

But the loading on the premiums, which on the average is about 25 per cent, is not included in Net Valuations.

Thus, though the Company is charged substantially the full value of the policy it is allowed credit for only about 75 per cent of the premiums.

As Net Valuation takes no account of future loadings, so of necessity it takes no account of those liabilities that are expected to be paid out of future loadings and this is the vital defect in Net Valuations considered as a substitute for all Accounting. It leaves out a large part of the assets and a large part of the liabilities. It is thus only about one-half the Accounting.

Let us note some of the things omitted.

A Company grants a large territory to a General Agent. The Agent spends large sums of money developing the territory and establishing an Agency Force. This benefits the Company as much as if the Company had spent the money itself. In return the Company grants renewal commissions on future premiums. Under the present Net Valuation system none of these things enter into the Accounting or into the Statement of the Company, although materially affecting future dividends.

Again, in return for services rendered a Company grants special or board contracts creating future contingent charges against the future business of the Company. These contracts materially affect future dividends and yet none of these transactions appear in the Company's Accounting or in the Company's Statements.

Again, a financing Company advances money to put a young Company on its feet, and takes in effect liens on future loadings. These liens, of course, diminish future dividends, but these transactions do not appear in the Accounting or in the Statements.

These and other similar omissions necessarily follow from the Net Valuation plan, for if the assets out of which all these things are expected to be paid are omitted, to-wit: future loadings, of course the liabilities themselves must be omitted. The Net Valuation plan does not propose to take account either of these assets or liabilities.

Again, in passing judgment upon the expenses, interest, mortality and surrender values of a Company, Accounting requires that we take account of the age, size and rate of growth of the Company, for under equally good management these vary greatly with the age, size and rate of

growth of the Company. The expense ratios diminish as the Company increases in size.

The following table shows the average graduated expense ratios of Companies of different sizes:

AVERAGE GRADUATED EXPENSE RATES OF LIFE INSURANCE COMPANIES CLASSIFIED BY SIZES OF THE COMPANIES.

Size of Company	First Years Commissions	General Premium Charge	Administration Ratio per $1000 Insurance Plus Single Premium
25 Million	50	.150	2.53
50 "	50	.135	2.43
75 "	50	.126	2.34
100 "	50	.120	2.26
200 "	50	.103	2.06
300 "	50	.090	1.91
400 "	50	.080	1.82
500 "	50	.072	1 75
600 "	50	.065	1.70
700 "	50	.063	1.65
800 "	50	.062	1.60
900 "	50	.061	1.55
One Billion	50	.060	1.50

By the use of the above table and by the Legal method of dividend calculations we can easily calculate how much an increase in the size of the Company will or ought in the future to diminish expense ratios and increase the future dividends of the different Policyholders in the Company.

We can thus easily calculate how much each Policyholder can afford to pay for new business.

It is self-evident that the old Policyholders cannot afford to pay much, for they will not be in the Company long enough for the diminished expense ratios materially to affect their dividends. The young Policyholders can afford to pay more, but not more than their future dividends will be thereby increased.

Similarly, correct Accounting must take notice of the difference in the aggregate mortality rate of the young and old Companies and the difference in surrender values and lapses.

None of these things appear in Net Legal Reserve Valuations. We should construe the Legal Reserve Net Valuation laws as conditions to which Accounting should conform and not as substitutes for Accounting.

There is only one way to value all these elements and that is to introduce them into the dividend calculations and actually to calculate dividends by the legal method for all future years and see what dividends the Company will actually earn in the future subject to all these conditions.

NATURAL ACCOUNTING AND VALUATIONS.

Suppose there were no Legal Reserve Net Valuation laws. How would we examine a Company and determine its solvency and probable future dividends?

The Company's contracts are future, contingent and executory. The business depends upon averages and these averages are liable to fluctuation.

In order that the Company may be certainly able to carry out its contracts it must, therefore, provide for three things:

1st. The Company must maintain a fund which improved at the interest rate actually being realized by the Company will along with future pure (net) premiums pay off all claims as they mature, according to the death rate actually being realized by the Company. This is the Natural Policy Reserve which the Company should maintain.

2d. The Company must maintain a Contingency Reserve sufficient to meet unlooked for future contingencies.

3d. Outside the Policy Reserve and the Contingency Reserve the Company must provide for expenses to keep itself going while it is executing the contracts.

If there are Legal Reserve Net Valuation laws the Company should in calculating its Reserves substitute the mortality and interest rates designated by law in place of its own and thus maintain the Legal Policy Reserve in place of the Natural Policy Reserve. This is the only effect the Legal Reserve Net Valuation laws ought to have on Accounting.

Correct Accounting demands that these three things should be kept distinct and should not usurp each others' functions, but this rule is violated in the methods of Accounting generally adopted.

Deferred dividends have been wrongfully allowed to usurp the functions of the Contingency Reserve. This is bad Accounting.

Deferred dividends should be looked upon as dividends that have been paid to the Policyholders and by the Policyholders returned to the Company and deposited with the Company as special funds. Deferred dividends are thus in marked contrast to and have no connection whatever with the Contingency Reserve.

In another way dividends are wrongfully confused with the Contingency Reserve. If dividends are large the Company is tempted to allow the Contingency Reserve to become too small, expecting to replenish the Contingency Reserve out of future dividends because it is so easy to do it. This is bad Accounting, for it throws on future Policyholders the charges that ought to fall on present Policyholders, and destroys the legal proportion between dividends.

Again, deferred dividends have been wrongfully used to pay first year's expenses and to put up the Reserves of the young Policyholders. This is illegitimate and bad Accounting.

In Non-Participating insurance savings from interest and mortality usurp the function of the expense loading.

On the other hand, in Industrial insurance the defective Policy Reserve is often supplemented by excessive loadings.

All the above ways of confusing the functions of the Policy Reserve, Contingency Reserve and loading either destroy the correct proportions between dividends or produce inequities in Non-Participating premium rates.

Correct Accounting requires that the Policy Reserve, the Contingency Reserve and the Loading be kept perfectly distinct. No matter how large the dividends, the Contingency Reserve should be maintained intact to its full standard, for all the savings, no matter how great, should be at once paid or credited as dividends to the particular individuals or classes and not wrongfully converted into a Contingency Reserve.

CONDENSED STATEMENT FOR PURPOSES OF VALUATION.

We give here the general Condensed form of Statement for purposes of Dividend calculations and Valuations.

The Accountant should calculate and determine the following:

1st. The assets.

2d. The mean fluctuation rate in market value of the assets.

3d. Mean rate of interest.

4th. Mean fluctuation rate in interest rate.

5th. Actual mortality at different ages, policy years and classes of policies.

6th. Policy Reserves.

7th. Liabilities certain and contingent.

8th. The Contingency Reserve.

9th. The Divisible surplus.

10th. Commission rates on first premiums.

11th. General premium expense charge.

12th. The General Administration ratio.

13th. The per cent savings in interest.

14th. The per cent of actual to expected mortality at different ages, policy years and kinds of policies.

15th. The surrender ratio and per cent of reserve saved on surrender.

In examining the Company and valuing the policies the dividends should actually be calculated by the Legal method from the foregoing statement on all forms of policies, at all ages of issue and for all policy years. In these calculations should be included all present as well as future and contingent liabilities, including Agent's commissions, Special and Board contracts, promotion obligations, etc.

For dividend purposes equities will not be disturbed by the substitution of the legal interest rate and the legal mortality table for the Company's actual interest rate and actual mortality table. In the long run the aggregate dividends to any one Policyholder will be about the same, though by one method dividends may start small and grow large and by the other method may start large and grow small. In the long run the result to any one Policyholder will be about the same.

Thus, the Legal Reserve laws are not only unobjectionable, but are very desirable provided they are considered as conditions to which Accounting must conform and not substitutes for all Accounting.

SOLVENCY AND INSOLVENCY.

We may for our purposes distinguish three sorts of insolvency.

1st. Natural insolvency (by the spirit of the contract).

2d. Technical insolvency (by the letter of the contract).

3d. Artificial insolvency (outside the contract).

1st. Natural insolvency by the spirit of the contract.

As preliminary to this subject let us consider the present system of Guaranteed Surrender Values. Under the stress of competition the Companies now grant guaranteed cash surrender values, loans, paid-up and extended insurances practically equal to the entire reserve on the policy.

In our opinion this is opposed to the fundamental principles of Life Insurance.

A Guaranteed Cash Surrender Value is in effect a deposit in bank subject to sight draft. In our opinion a charter to do a Life Insurance business does not cover banking business of this sort. We do not believe a Life Insurance Company has the power legally to bind itself by such a contract.

Similarly a Guaranteed loan value attempts to take away from the Company that right of discretion which it cannot legally part with as to how and when it will make its loans.

Similarly, Guaranteed Extended Term insurance in the event of lapse or surrender is, to say the least, unwise, inasmuch as it binds the Company without medical examination in the future to grant a new kind of insurance. It is not an "Apportionment" in the proper sense of the original insurance, but is different in kind.

On the contrary, paid-up insurance of the same kind as the original is the only correct legal "Apportionment" of the original contract, being the same in kind but proportionally less in amount, and is all the Company ought to guarantee, and is probably all that the Company can legally bind itself in advance to guarantee.

Guaranteed Cash Surrender values and Guaranteed Cash Loans and Guaranteed Extended Insurances are so foreign to Life Insurance that they cannot be "Valued" or treated on Life Insurance principles. We will, therefore, disregard them and consider that they are "ultra vires" and not in the contract.

The substance, the spirit of the contracts between the Company and the Policyholders is that the Company will pay losses as they mature. If

the Company can do this the Company is solvent in the spirit of the contract.

The way to find out whether a Company if let alone can meet all its obligations as they mature is as follows:

From the Condensed Statement calculate dividends by the legal method. If these dividends are positive the Company is actually solvent and can in spirit carry out its contract. If the dividends are negative the Company is insolvent. This is Natural or Actual Valuation.

If the policies are participating deficient premiums on one policy, shown by negative dividends, cannot be supplemented by the positive dividends of other policies.

If some of the dividends are positive and some negative this will show that premiums have been unscientifically loaded.

In calculating future dividends all future contingent liabilities must be taken into account.

If under a General Agent's contract, renewal commissions are payable in future years, these must be added to the future general premium charge.

If under Special or Board contracts, liens exist on future business these must be added to the future expenses of General Administration.

If under Certificates in the nature of Stock, or under contracts with Financing Companies, any future contingent liabilities exist they must be added to the correct class in the future expense account.

If after all these contingent future liabilities are taken into account, dividends legally calculated turn out to be positive, the Company is solvent in fact and in the spirit of the contract. Otherwise the Company is insolvent.

2d. Technical Insolvency by the letter.

A Company is solvent in the letter of the contract when it can carry out not only the material parts of the contract, but also all the specific details agreed upon, whether material or immaterial to the main result.

The most uncertain thing in Life Insurance is the interest rate. A Life Insurance contract may last for seventy years. No Company dare predict what the interest rate will be seventy years from now.

Common prudence demands, therefore, that an interest rate be assumed much lower than expected.

Mortality is more steady. Mortality seventy years from now will probably be less than now.

If a Company advertises a low interest basis there is an implied contract that it will maintain a Policy Reserve, on that low basis. This may require a larger Policy Reserve than needed.

The Company is technically insolvent if it cannot maintain this high Reserve. Though technically insolvent the Company may be amply solvent in fact.

Technical Valuation is thus no sufficient test of a Company.

3d. Artificial Insolvency outside the contract.

Each state arbitrarily fixes an interest rate and mortality table and requires each Company to maintain Reserves by these rates (Net Valuations).

Net Valuations are artificial in establishing interest and mortality rates different from the facts and defective in omitting future loadings and the many future obligations expected to be paid out of future loadings.

Solvency or Insolvency by the artificial defective method of the Legal Reserve Net Valuation plan is no true test of a Company.

EQUALIZATION.

The Legal method of Dividend calculations not only tests the solvency of the Company, but tests the equities as between the different Policyholders.

To test whether premiums are equitable as between the different Policyholders, we need to calculate Dividends by the legal method. If these Dividends read smoothly the Premiums are equitably adjusted.

This is more important in Non-Participating than in Participating insurance. For in Non-Participating there are no Dividends to adjust the original inequities.

In calculating Non-Participating premiums approximately the actual interest and mortality rate should be adopted. These will give the Pure premiums. The loadings should then be determined by the inverse method of Legal Dividend calculations.

Suppose the Company's experience is nearly the American Experience Mortality Table and 4 per cent interest with 30 per cent commission on first premiums, 5 per cent General Premium charge and $1.50

general administration ratio. The Non-Participating rates of the Company should be about as follows:

NON-PARTICIPATING—ORDINARY LIFE.

Ages	20	40	60
Pure Premium 4%	12.67	22.35	55.45
.30 Commissions First Premium reduced to an Annuity	.19	.41	1.57
.05 General Premium Charge	63	1.11	2.77
1.50 Administration Ratio	1.87	2.05	2.40
Non-Participating Premiums	15.36	25.92	62.19

Dividends, if legally calculated, will depend upon the assumptions we make as a basis of Premium calculations.

If we assume high expenses, true interest and true mortality the profit will be in the expenses.

If we assume true expense, low interest and true mortality the profit will be in interest.

If we assume true expenses, true interest and high mortality the profit will be in mortality.

Each of the foregoing assumptions as a basis will give proportionally a different schedule of premiums and proportionally a different schedule of Dividends.

The assumptions made as a basis of premium calculations thus control the relative proportions of future Dividends. A basis once assumed should be maintained as long as the policy is in force. Otherwise Dividends will be inequitable.

As Dividends by the Legal method adjust errors and inequities in the original assumptions it does not make much difference what the Participating premiums are, provided we calculate Dividends on the same policy by the Legal method on the same expected interest and mortality throughout from year to year. But this is not true of Non-Participating insurance. For the latter the assumptions of expense, interest and mortality rates for premium calculation should be substantially true at the beginning and should remain true throughout from year to year. Otherwise premiums will become inequitable, even if they started on an equitable basis.

If a Stock Company writes partly or wholly a Participating business, Dividends should be calculated on each policy by the Legal method ex-

actly as in a Mutual Company. Expenses and profits should be assigned to individual Policyholders, whether Participating or Non-Participating, by the Legal method of Dividend calculations.

But in a stock Company the interest on Stock should go to the Stockholders, for the Stock was not contributed by Policyholders.

Also, the Dividends on Non-Participating insurance should go to the Stockholders.

The above adjustments put the Policyholders in a Stock Company exactly where they would be in a Mutual Company.

The above assumes that the Stockholder's part and the Policyholder's part of the Contingency Reserve pay losses proportionally, but this may not be the practice of the Company or the agreement with the Policyholders.

The agreement may be that the Stock must be consumed before the Policyholder's part of the Contingency Reserve is resorted to. If so, the risk to which the Stock is exposed is the probability of its being consumed by fluctuations. This risk is calculated exactly like the Contingency Reserve itself and for this risk the Stockholder should be paid what the risk is worth.

On the other hand, the agreement may be that the Policyholder's portion of the Contingency Reserve must be exhausted before the Stock is resorted to. If so, the risk on the Stockholders is very much less. The risk is the probability of the Stock being consumed after the balance of the Contingency Reserve is consumed, and for this small risk the Stockholder should be paid what it is worth.

Thus, there are three cases. 1st. Where the Stock and the other part of the Contingency Reserve share losses proportionally. 2d. Where the loss falls first on the Stock. 3d. Where the loss falls last on the Stock. These three cases are very different.

The foregoing is the theoretical, as well as the practical, adjustment of the relation of the Stock to Participating and Non-Participating insurance.

The above adjustment fully answers the questions whether a Stock Company should write Participating business, or Participating and Non-Participating at the same time.

Science confirms the dictates of common sense that there is no reason whatever why these should not be united, provided the Legal rights of

each are protected. The Company, the Non-Participating Policyholders and the Participating Policyholders are all benefited by the combination and none of them hurt in any way, but each strengthens the other, provided always that the Legal method of Dividend calculations and of adjustments are strictly followed.

May a Mutual Life Insurance Company write both Participating and Non-Participating business?

This is purely a legal question and depends upon the construction put upon the charter.

The charter will be construed under the general corporation laws of the state in which the charter was issued. These general corporation laws differ in the different states.

The charter will, of course, also be construed by its own wording.

Thus, it is probably impossible to lay down any general law whether or not a Mutual Company may legally issue Non-Participating business. Each case will stand on its own footing.

Should a Mutual Company write both Participating and Non-Participating business, if authorized by its charter?

This question is already sufficiently answered above. If the legal methods of adjusting rights, calculating premiums and calculating dividends are adopted, every consideration is in favor of the Mutual Company writing both Participating and Non-Participating business. Each class strengthens the other and diminishes expenses.

SAVINGS.

The Legal method of dividend calculations not only determines whether a Company is solvent or insolvent in the widest sense, and not only adjusts the equities as between the various parties interested in the business, but also determines the amount of savings apportionable to each party.

If the Policyholder is satisfied that the Company is solvent and treating all Policyholders fairly, the final test of the Company for his purposes is the net cost to him of a given policy in the Company. This is the final step in the Valuation of the Company from the Policyholder's side.

This final step consists in ascertaining the present value (taking everything into account) of all future legal dividends as determined by the Company's present condensed ratios.

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